

ENVIRONMENTAL PROTECTION AGENCY

Meeting Of:  
N A C E P T

TOXIC DATA REPORTING

(TDR) COMMITTEE

March 19, 1998

Double Tree National Airport  
300 Army Navy Drive  
Arlington, Virginia

Proceedings By:

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# P R O C E E D I N G S

(8:45 a.m.)

Agenda	Item:	Welcome and	Introductory	Remarks.
MR. FEES:	Let's get started.	I want to welcome you		
to the fourth toxic data reporting meeting.		We have got a lot		
to go over.				
I believe everyone should have a copy of the agenda.				
There were agendas being passed around.		Ask Michelle if you		
don't have a copy of that.				
There are a couple of small introductory procedural				
items that we need to cover before we start getting into the				
issues. I think for that I am going to turn it over to				

Michelle and Maria.

MS. PRICE: I just have one little thing. [Travel reimbursement logistics discussed.]

MS. DOA: I just have something really quick. This is the fourth meeting. We have been looking at the reporting under form R, ways to maximize good information and streamline reporting.

Just to remind you, the next meeting we will be looking at the form A, moving on to that, focusing more explicitly on burden reduction.

I just want to remind everyone, if there is anything when you are doing this today that relates to form A in the back of your mind, just probably write it down. It will be useful for the next meeting. Thanks.

MR. FEES: Okay, the first topic on the agenda is sort of wrapping up the recommendations that we had drafted on the characterization of TRI data. We are going to be going over that and providing -- we want to have folks provide any final disagreements that we had with some of these items that we have drafted and worked over at the last meeting.

Does everyone have a copy of these recommendations? It is entitled, Better Characterization of TRI Data by EPA. It was five issues with multiple bullet items underneath.

It was the item that was sent out to you I think at the end of February. I don't think anything has changed about it since then.

I had taken the comments that we received from the last meeting when we had discussed this. Susi, Linda and myself and a few others had jotted down items that people wanted to add, some language changes.

I worked all that in, and that was sent out to you at the end of February. I hadn't heard any comments back on that, so I thought we would just sort of wrap this up so that we can move on to the four group discussions.

I am probably going to approach this the same way I approached it the last time, take each of the bold issues, have you look through it for a minute or two.

Then go through each one of the bullet items under each of the main issues, and say, you know, are there any disagreements with this.

If so, what we want to do is characterize what your disagreements are with this recommendation. At this point we are not seeking alternatives to add in here. We are not trying to add new items.

We would like to recognize those disagreements, because not everyone is going to agree with every one of these items in here.

Why don't you go ahead and look over issue one. It is actually the longest issue, and then we will start in a few minutes with the various bullet items.

[Participants read document.]

MR. FEES: Why don't we start with issue 1.1, enhance figure 4-4, the PDR, to include other regulatory programs that cover each stream and indicate the type of data that those programs collect, blah, blah, blah.

Does anyone have any comments with regard to that recommendation?

Our facilitator is going to jot down and summarize some of the comments. I am also going to try to take notes and Michelle is, too, so that we can work on writing up these disagreements or alternate views on these points after this meeting.

If there are no comments on --

MR. BROMLEY: I have got just one comment. I would suggest that the issue be written so that you have a short first sentence basically, maybe a little bit duplicative.

The very first clause, TRI data in the public data release are not adequately represented in context. That summarizes basically what the issue is, and then you get into the details further of the issue as you go on when you say context is missing with, and then go on to explain those four or the seven bullets or the eight bullets or whatever it is, or the eight items that are listed.

That is just more to have a sound byte or whatever it is, a short sentence to summarize it all. That is just a suggestion.

MR. FEES: Okay, any comments specific to item 1, underneath issue one? How about item 2, provide more information in the PDR regarding the fact that the TRI does not include all chemicals or all facilities, and that there are other impacts to human health in the environment from a variety of sources.

Okay, we will move on to number 3. Joan, did you have something on number 2?

MS. FASSINGER: I guess the idea of that was to better put TRI data in context. I guess we would ask not only for a statement but some examples of some key contributors to environmental risk.

MR. FEES: What specifically about item 2 do you have disagreement with?

MS. FASSINGER: I don't think I disagree, but I think the thought was to put more than just a statement, that there are other sources, but also provide some examples to put the TRI data in context.

MR. FEES: Providing more information is kind of a general enough term that it could include examples, I think.

MS. FASSINGER: Okay.

MR. FEES: How about number 3? As I recall, number 3 is something that we had worked over a little bit from the original draft.

MR. BROMLEY: You have "or" there. You could make them and/or.

MR. ECK: Is there any way to provide an example of normalizing data in the recommendations? Did we have one; did you have one in mind; an example, a good example to sort of work through the idea.

MR. FEES: I think we were being more general with these statements, to assist. EPA has got to take that and say, well, how can one assist, and it is through example, often. I think we need to leave it broad enough.

MS. FERGUSON: On this one, on number 3, to the extent that we are talking about facility reports, I wouldn't want to unduly burden the existing reporting system.

To me this is information in addition to that, that

EPA uses to put the item in context as easily as it can.

Taken to its extreme it may be more reporting -- or more difficult to do some of this than it is to do some of the actual reporting.

I just want to caveat that we are looking at trend information, general information, to put the existing reports in context.

MR. FEES: But you are not recommending changing the report? This is how EPA --

MS. FERGUSON: Yes, this is putting the data in context. I just would be hesitant to create an entire reporting system off this recommendation, is what I am trying to say. Balance our reporting burdens when they consider this recommendation.

MR. FEES: Any other comments on number 3? I am not sure that was a specific objection to number three.

MS. FERGUSON: I guess I am saying that if this is read as we are going to add two or three pages of data to the existing reporting form, I would object to it.

If it is providing information in the public data report that helps put that information collected in context, I agree with the statement.

MR. FEES: So, you are saying that this implies that to achieve this you may have to add new data elements to the form.

MS. FERGUSON: I just want to be clear that my understanding of three and my approval of three is as a general trend analysis and not as authorization for yet another information collection activity at this point in time.

MR. BROMLEY: So, let's have that reflected in the notes, so that we make sure that the recommendation is understood completely; that it is not recommending additional data elements to be put into the form itself, but just for information that EPA can put in a PDR.

MS. FERGUSON: We may separately come to that as we look at form R, but from this recommendation, it is more how you put that.

MR. FEES: That can be a specific -- not objection to it, but --

MS. FERGUSON: A caveat?

MR. FEES: A caveat, that we are looking at existing information.

MS. FERGUSON: Existing information sources.

MR. SPRINKER: I understand what is being said and I would hope, too, that we don't end up with a sort of massive data collecting effort on this to come up with this information, but it may very well require that there be a certain small number of data elements which companies may already be collecting.

If you go on employment -- just as an example, not to say this is being recommended or not, but if you go on the basis of what is your total employment, I can't see that would be overly burdensome, given that is already being collected for BLS data; it is already being collected when companies are, for example, calculating their loss per paid incident rate and so on. That is just one example.

I also wouldn't want it to be in a way that neces-

sarily means that the company is also having to do a whole bunch of calculations either.

Every time you end up doing a lot of calculations on coming up with indices and all, I think there is a potential for a lot of error and maybe you are going to get really muddled information.

To say that we don't want any additional data collection to come up with this, I think, would be incorrect.

MR. FEES: I think we need to note that. I believe that we were looking at the existing -- characterizing the existing data, and that would be a specific viewpoint on this topic.

MS. FASSINGER: Just for the record, it was my understanding -- and it is reflected in each recommendation -- that the committee is recommending that EPA take existing data, and combine existing data for these purposes.

We did talk about some sector input with regard to normalization numbers, or state input with regard to economic normalization factors.

I feel that it needs to be made quite clear that we were not asking facilities to do any of this. I think reflecting Susi's comment, if we have to add or modify a couple of data elements to do that as we go along, that is another item of discussion which quite naturally may be necessary, but it was the intent to take all the recommendations or all the data that would be utilized for any of these recommendations out of existing sources.

MR. FEES: Anyone besides Mike and Susi have a different understanding of that?

MR. BROMLEY: I would echo that but also to further that is that EPA should obviously be doing this in conjunction with the people who file the report.

If they call them up and question, it is not to ask for data on the form R itself, but they shouldn't just be out there alone doing it, that they should try to gather information.

The burden should be on EPA to try to get the most accurate information to normalize the data and put it into context.

That is what the recommendation is, is for EPA to go out and do that.

MR. FEES: To get that additional information like employment and --

MR. BROMLEY: Not as mandatory.

MR. FEES: And appropriate indicators. We didn't say that. We said the use of comparable employment data and/or appropriate indicators, but we didn't say who should get that. It was necessarily vague as to that.

MR. CHELEN: Maybe it is clear, but there should be no limitations of where EPA can go to get this other data to normalize it.

It could be census data. It could be data coming from another federal agency, from the facilities. It is not that EPA should expand the TRI reporting. On the other hand, EPA should not be limited in any way in what it is otherwise able to do to get other data to bring in.

MR. FEES: Anything else on 3? Those are some good

additional thoughts on that.

MR. SPRINKER: I was going to say, maybe I shouldn't have brought up the issue of employment data because I think it may have triggered some worries or something. I don't know.

That, of course, was only a very hypothetical example, not based on -- it is the quickest one that came to mind. There may be many other routes to do that.

MR. FEES: Let's move on to number 4, and that deals with hazard risk and exposure. As you can see, it lengthened considerably to try to take in all the thoughts that we had on this one.

So, read through that item specifically and then put your cards up or raise your hands or whatever, and begin discussion on it.

FACILITATOR: Keeping in mind that we only have 40 minutes to discuss this whole three pages.

MR. CHAMBERLAIN: I have got a couple of comments on section 4 there. We recommend taking out the second sentence, basically because we do not believe that, as we have stated there, there is supposedly a chemical hazard index that lacks credibility.

As a result, that particular sentence doesn't really add anything to the completeness that we are trying to accomplish. So, I recommend that we take out the second sentence.

It also indicates a tendency to be endorsing a particular hazard index, and there is not one, I don't think, that has been put together, according to my resources, that really has all the scientific data that needs to go into a good true hazard index. That statement just doesn't add any value to what we are trying to accomplish.

MR. FEES: Does anyone want to concur with that? Paul, you are the one who indicated about the hazard index that already existed. It was your input that brought this statement onto it.

MR. ORUM: No, it doesn't already exist. EPA has had an index that is in the road maps section 313, which has been helpful, but it is incomplete. It is many years old.

So, I still want to restate the importance of being able to look across a chart and see which particular hazards are associated with a particular chemical, such as carcinogen, mutagen, neurotoxin, whatever, but I don't think it is correct to say that it is currently available and that it exists.

MR. CHAMBERLAIN: I think if you look down to the statement that says -- we kind of capture it again if you go down to where it says, therefore in the short term.

I think we should take out the therefore in the short term, and just start that sentence that says, EPA should include a hazard index with the PDR, and then along with the rest of that information there, the fact that you have to be careful about using one.

Then I have some other comments about adding components to the very last sentence on that page, but I will get to that later.

MR. STEIDEL: Just to echo a little bit of what Sam is saying, I thought I saw two different chemical hazard indices here. I think there should only be one. I am not sure



there is one available.

Again, risk being the idea why we want to see this index so that the user of the PDR can reasonably understand risk from the data in the PDR in their community would, I think, require a more simplified risk index than we have seen in the past, too.

MR. ORUM: I think we need to ascertain that second statement. It is specifically saying that a chemical hazard index is currently available. Is that language inappropriate? I think it is inappropriate.

MR. BROMLEY: I think we should capture it in the first sentence that says that you are looking for scientifically credible and valid information, and that is to develop something like that. That is what we are giving EPA recommendation to do, but right now it doesn't exist.

MR. ORUM: I guess I would concur that the second sentence could come out, and the changes to the fourth sentence taking out therefore in the short term, because we want both short term and long term to have, EPA should include a hazard index.

I think what we need to do is agree on what this hazard index is.

What I would say is that EPA should include a hazard index -- in parenthesis, similar to the road maps section 313 toxicity matrix that is already existing, and then close parenthesis.

That would say what it is that you are telling people with this hazard index. It is not an assessment of risk, of exposure, of how much release, of what the effects of exposure are or any of those things.

It is simply these are the inherent hazards of the chemical. This is where it is known. This is where it is not known. So, any person can look at a glance and say, this is why I should care about this chemical.

MR. BROMLEY: I think rather than saying similar to, I would say an expansion of, or completion or, or an update of.

MR. FEES: Any other thoughts on that?

MR. NATAN: I think it is the word index that is the problem.

MR. FEES: Matrix?

MR. NATAN: Index implies like a sector facility index or the environmental indicators project where there is a weighting factor assigned to a particular chemical.

We are not looking for that. We are looking for the descriptive information on potential health --

MR. FEES: I think there are differing views on that. There may be some people who are looking for an actual index. It is a matter of defining how this road maps system previously existed.

MR. CHAMBERLAIN: Tom, it is a little bit more than that. It is not just the term index. I think it is the whole concept here of trying to accurately reflect the information that is available, all the toxicity characteristics.

Then, in concert with that, you take the last sentence on that page and say, okay, we have got all this toxicity data now. Let's look at the factors that might affect a

particular individual or facility or receptor.

Then we try to capture that in this particular paragraph later on, which I don't have a problem with.

It is just the concept as presented here, at least myself and others believe that we are trying to give credibility to an existing chemical hazard index when, in the final analysis, we know that it has a lot of shortcomings.

The goal, I think of ourselves and industry and the public is to come up with a scientifically credible index, and I think that ought to be reflected here.

MR. FEES: The second sentence does say it doesn't give a complete picture and there needs to be conveyed a cautionary statement along with that.

We don't have the time to really rework too much of this, unless there is a majority of the group that really takes exception to the same thing that Sam does, to the language that is in here.

It is saying that it is imperfect information that exists now, and that we need better information in the future.

MR. CHAMBERLAIN: I think we do have a short amount of time. We do need to move on. I think I heard Paul agree that he didn't mind taking that second sentence out.

Let's go on to some of the other issues and at least let the document reflect that we have a concern with that second sentence and go on. I mean, I think it ought to be taken out, personally.

MR. FEES: Are there others that echo Sam's thought on taking that second sentence out?

MS. FERGUSON: I just needed to add on, if you take the second sentence, let's go ahead and take the third one, too, because it says some information and then other information.

I am not sure that you would -- in my opinion -- that you don't do damage to the paragraph, the thoughts behind it that folks were discussing if you take out both, because you have another item where you talk about cautionary statements and issues.

If it is incorrect to say something is currently available and it is not, then I am very much opposed to inferring something is available if it is not. So, we would have to fix that, in my opinion, on your second question about who supports it or doesn't support it.

Those two sentences were connected, and I wanted to fly that.

MR. FEES: I agree, about those two sentences being connected.

MR. CHELEN: I would like to make sure that you are challenged to do more than provide information on hazard, risk and exposure.

It should be toxicity and other relevant factors to a successful TRI program that might be beyond these other ones. We should also stress that they are quantitative and not just qualitative assessments.

MR. CHAMBERLAIN: I think we capture that concept, John, later on in that last sentence trying to highlight at least a couple of factors. I have a couple that I would like to add to that, for consideration.

MR. FEES: I think, John, that is something that is going to have to be noted as an objection to this point in terms of you disagree with the statement here, and it is something added to it.

We are not going to be able to rework those concepts in here, because then the whole group would have to give input on that, and we don't have the time for that. That would just have to be an added comment.

Any other thoughts on this one?

MS. FASSINGER: I am looking at the last draft from 129. It does discuss hazardous matrix. I agree with Paul, although conceptually I have not looked personally at the road map section 313.

I have a little hesitation about recommending or using any specifics such as that as an example, unless we have really been able to take a look at that.

Having some indicator of why the chemicals are on the TRI, I think we would all agree would be some helpful information.

So, I would recommend that maybe we go back and look at the previous version, if that seems to more adequately address the issues we are discussing today.

It seems that in our revisions number four was more substantially changed than --

MR. FEES: It was lengthened to sort of try to capture a lot of the comments here. It is sort of getting us into a bind now. The more statements that are in there, the more there is to disagree with.

I think at this point we should take a vote. If you don't like the statement as it stands, and we have a majority that doesn't, then I don't think we should put that in the recommendation.

Maybe this specific item we are going to have to rework or we are going to have to take it out.

MR. ORUM: I think we are actually quite close on this.

MR. FEES: But I don't know how close we are until we kind of rework language and then vote on it and then rework language and vote on it some more.

MR. ORUM: I think we are quite close. The basic idea is you start out with some basic information, a hazard matrix.

I would agree with Tom; this is not an index. We just had this lawsuit and so forth over the sector facility indexing project which was to get rid of information on comparative hazard like that.

A basic hazard matrix is something that we have agreed to. Then after you get that, which is basic information; it is achievable; it has sort of been out there before and the 1994 TRI data release had a couple of these matrices in this.

Then you can go on beyond that into the material that is in the last sentence on exposure, risk, other concepts. I think there is probably agreement on that.

MR. FEES: Do you have a suggestion, Sam?

MR. CHAMBERLAIN: We can draft something over lunch or at the break and then we can come back and review this and

go on.

MR. FEES: We need to go on, but work on it before we leave at the end of two days.

MR. SKERNOLIS: I just have one clarifying question on what we are agreeing to. This touches on Joan's point.

What is it we are asking to be done here that is not already implicit in the reason why the chemical is put on the TRI list.

MR. FEES: Communicating.

MR. SKERNOLIS: That is already out there. In other words, it is just a matter of incorporating; right?

MS. FASSINGER: It is not readily available.

MR. SKERNOLIS: No, it is not readily available, so it needs to be incorporated -- I am not questioning. I am trying to understand.

We are asking the EPA to do something more than they have already done to justify placing the chemical on the TRI list in the first place. I am just trying to understand what I am voting on.

MR. CHAMBERLAIN: Ed, it is more than that, other than just why a chemical is on the TRI. In my mind, there are two elements in item four that are important.

One is to provide the public with information about the hazards of that particular chemical so that I will have some information to validate some concerns.

Then the other piece of this is to factor into it what are the indices by which you need to determine risk or exposure.

The last sentence in here takes into consideration those factors that we want EPA to speak to.

MR. SKERNOLIS: I am just talking about the hazard point that you were arguing about, the two sentences in the middle there about the hazard.

I am just wondering what the difference is between what you all are asking for and what has already been done to identify the chemicals. That is all.

MR. FEES: I think we are getting back into the whole discussion on it.

MR. SKERNOLIS: I am just asking somebody to tell me, are you asking EPA to do something more than has already been done or not. That is all I am asking.

MR. FEES: Yes, and I think there is an agreement on that. I think what we need to do -- Paul, would you be willing to work over -- and Sam -- and anyone else who had comments, would you like to assist them at break or probably over lunch and bring that back and we can put it up on the overhead?

MS. PRICE: Yes, we have got blank tapes, forms up there, if you want to right it up there at the overhead.

MR. FEES: I think from the comments I heard, I think we are fairly close, but it just takes some tweaking. As I said, we don't have the time right now. If anyone else wants to assist Sam and Paul on that, get together with them. We will move on to number five.

MR. SPRINKER: I have been fairly patient, but I don't want to skip over a point that I definitely want to make on this, and that is the use of the term, valid science.

It may be a minor point but it is one of those which I feel is a completely pejorative term, like good science or bad science.

I would much rather see terms like that avoided, and use something like use appropriate scientific methodology.

We are always going to fight over what is accurate and inaccurate, what results are acceptable and non-acceptable.

To use a term like valid science, I would just as soon see that judgement based on many other factors.

MR. FEES: What was that other language that you mentioned?

MR. CHAMBERLAIN: Using appropriate scientific methodology. I do think that we should recommend that -- I do like that third sentence otherwise.

MR. FEES: I will note that. If you would like to work with them, maybe we can work that in, since we are working on it anyway. Number five.

MR. CHAMBERLAIN: Before we go to number five, I have one other comment on four. This is just on the last sentence on number four, it says a supplemental document should discuss the bioaccumulation, and then you have a list of components there.

I would like to add pathways, concentration, duration of exposure there, that our group felt were important, just documenting that there are other components that we do want to add to that.

MR. FEES: We do run the risk, in adding some things that your group believes in but maybe others don't -- there may be things that, as an alternative, get added as your sort of objections to the way it is stated now.

MR. CHAMBERLAIN: I just want the tape recording not to be erased under this section here later on. I just want to add pathways, concentration and duration of exposure in that last sentence.

FACILITATOR: We have 20 minutes to go through two-and-a-half pages here. We haven't gotten that far. We are going to try to move you along. Number 5; are there any comments?

MR. CHAMBERLAIN: I propose that last part of the and, releases to the environment that are -- take that out and say, and managed land disposal options.

We talk about, in the first sentence, releases to the ambient environment and in our discussions, it was Susi's proposal that tended to break out as a concept land disposal option versus releases to the ambient environment.

This more adequately reflects what was discussed in our previous meetings.

MR. FEES: I am going to take that as sort of an objection. Essentially what we are doing is redebating the language, and commenting on it.

MR. BROMLEY: I don't think we are redebating. This is something that was in the last meeting that I thought we had arrived at consensus.

MR. FEES: I attempted to put in --

MR. BROMLEY: I think you did on the issue. It is stated just as Sam was saying. Issue 1-5 says just what Sam

is saying now and it is not reflected -- it seems to be changed when you put it in the more explanatory language.

MR. FEES: I think the language is the same from issue 1.

MR. BROMLEY: Number 5 says, distinction between ambient releases to the environment and land disposal options. Those are the two items.

MS. DOA: This is something that I jumped in, I believe, at the last meeting. I remember sort of playing around with releases to the environment. I remember this was my one ground rule.

MR. CHAMBERLAIN: Philosophically speaking, you have set the stage that basically says the definition for release into the environment is not up for discussion. That has been made very clear to me, so I am not tinkering with that.

What I propose is that under the form, how we as a group or individuals look at the data and try to characterize the data, it is still going to be called releases to the environment in the final analysis.

You have that prerogative. You have that statute set forward by Congress.

What I am saying is that in trying to better characterize the data we had discussed with Susi's proposal the concept of the form of breaking that particular section into different kinds of categories.

All I am saying is that this item five here is to represent how those particular characterizations were broken down on the form.

I am not challenging you on the definition of release to the environment.

MR. FEES: My memory may be incorrect, but I seem to remember when we had the discussion, I thought the word ambient was used in the second part.

MR. CHAMBERLAIN: I would propose my particular comment maybe as an alternative, using the same language in number five as we have in your bold face, the distinction between ambient release to the environment and land disposal options as an alternative.

We did talk about managed land disposal options and releases to the ambient environment. Let the record show my comments.

MR. SPRINKER: Actually, we are just talking about the public data release. I don't think we are talking really about the -- we are not talking about the form here. This is a public data release.

I think to a lot of people, if you dispose of something on land, that is a type of release to the environment, and I understand what Maria is saying here.

In fact, what we are doing here is saying that EPA does need to distinguish that these are two different things. We are not talking about messing with the form here.

FACILITATOR: Any other questions on number 5?

MR. FEES: Does anyone concur with Sam's point about the language that is in issue one, the bold face and item 5, because the language is different. Some may even consider that to be subtle.

So, you take a look at that, and I think if you look

at that and reflect on that, you are going to see where Sam is coming from. We have got a few comments. Paul?

MR. ORUM: I think that as long as you have the language, releases to the environment, on both sides of the equation, then you are okay.

My general comment is that I still don't understand what the difference is, and I think the difference that is used here is a vague term.

MR. FEES: That was the whole point of the thing, that there is a difference.

MR. ORUM: Yes, but we would have to clarify, is the difference in that in one case there is no intent to further contain whereas in another case there is an intent to contain; in one case there is no individual responsible for managing, whereas in the other case there might be.

To really resolve this we would have to say what is this difference.

MR. CHAMBERLAIN: I think we discussed that in prior discussions and tried to differentiate. I think Susan took great pains to try to explain the differences. She has her card up and I will let her talk.

Again, I have to reflect back to what Mike said. It is how you communicate to the public in the PDR.

MS. FERGUSON: I think that is the issue that I heard, that all of these are releases covered by TRI, but when we are talking to the public it may be easier to talk about releases to the ambient environment and the amount of these same chemicals that were managed in a disposal option.

Those terms make a difference to the public we have talked to in terms of the information they are asking for.

If you are trying to help public understanding, if you turn around and say releases with land disposal option, I can understand where Sam is coming from, because you are adding to the confusion at that point in time.

So, I think that distinction is the one they are trying to make in terms of public clarity as opposed to a regulatory definition in terms of coverage.

MR. CHAMBERLAIN: Let me just add one comment. We talk to our neighbors around our facility. We take great pains to explain that particular difference.

When we say release it to the environment, here is what the EPA's form is, but let me tell you how we managed those, which ones are air releases, water, land disposal.

It brings greater clarity to our neighbors when we explain it to them in that particular format, rather than as one big giant release number. But they have a better understanding of what is going on in the release process.

MR. ORUM: I appreciate the difference. I just think that there is a great potential for that clarity to be a clarity that is, in fact, misleading when, in fact, materials that do go into land fills end up often in the environment, but only 30 years in the future.

That is the problem that I have with attempting to clarify this as a difference. It is one of time, of intent, and a variety of other things.

MS. FASSINGER: I like the changes. They do seem to better describe the various release and emission and disposal.

Right now it is a little confusing.

We had talked in several meetings about trying to better characterize and provide better information to the public by being more descriptive with regard to disposal activities.

So, I don't feel that we are actually trying to not say it is not a release, but to just better describe that activity.

MR. FEES: Is there anyone else?

MR. SPRINKER: I guess when I look at this I see, what do I want, what will my members of the public get out of this PDR.

I want them to be able to look at the information and say, these releases are going into the air or maybe they are being put into the water or whatever, and are there ways of dealing with controlling those at the site.

You know, is the company doing a good job in controlling those releases. Are there other methods.

Then also, be able to look at what is being sent off to the land, and what is going to happen once that is disposed of on the land, you know, which is a different type of evaluation.

What is company XYZ, which gets these products, doing with it. Is it going into a hazardous waste site that has a good lining? Is it going into a place that has a really flaky record.

At one point, deep well injection was really considered sort of one of the great methods. Is that a land disposal method?

MR. FEES: How does that fit with the language that we are choosing?

MR. SPRINKER: I truthfully don't really have a big problem with this. Part of it may be describing to people that there are -- I hate to use the term; now I am going to fall into my trap of good releases and bad releases as my disposal options.

There ones that are well controlled and ones that are not. I don't really have a big problem with the language as it is, because I think all of our discussion kind of reflects the ideas of what we want EPA to consider, and there is no one perfect answer that is going to fit every single case out there.

MR. CHAMBERLAIN: Let me respond to that very briefly. I know we are running short of time.

MR. FEES: Yes, we have 10 minutes for the rest of the document, and we have to move on.

MR. CHAMBERLAIN: I just have a few more comments for the rest of them. To respond to Mike's particular comment, let me tell you a real story.

When the public data release first came out in Sterling's release numbers, we were ranked, I think at that time, number one in Galveston County and number five in the state of Texas.

Our employees called me up and said, Sam, wait a minute, what is happening here. We thought we had a good environmental program. What do these numbers represent.

When I went and broke down and explained to them



what the numbers were, I wrote a letter that was sent to every employee's home to explain these particular numbers and the breakdown.

They had a better understanding but it scared them when they saw this total release number, and they didn't understand what it meant.

So, by breaking it down into these categories like we are talking about here, you know, it helps me to better explain it to our employees and the community.

MR. FEES: With that, we will move on to the next one.

FACILITATOR: We are going to change the way we are doing this a little bit. We have 10 minutes for the rest of the discussion.

We are going to go as far as we can. When we run out of time, the language is going to stay exactly how it is. If you have a specific problem with it, forget it.

In the meantime, what we are going to do now, all we want up here is your comments. If you agree with it, if you don't have a problem, we don't need to know that. We just need to know if you do have a problem.

We don't want you to respond to each other and have a conversation. We just don't have time. So, if you have a problem, we will put it up there as succinctly as we can and move on. The next one is number six; any problems?

MR. ECK: Question. Include new data elements in the PDR or in the TRI form R. I wasn't quite sure what the discussion had gotten to. So, clarification of new data elements where.

MR. SKERNOLIS: That is in the form R.

MR. ECK: That is what I thought. Thank you.

FACILITATOR: Any other problems on 6? Go to 7.

MR. SKERNOLIS: As long as everyone understands that EPA, without adding data elements, has said the management of waste from off site for certain sectors constitutes an otherwise use for that scheduling.

It is not resolved through a data element process. It is resolved through a definition of otherwise use of a constituent.

FACILITATOR: Okay, number 7. Any problems? Number 8? Sam, are you on 7 or 8?

MR. CHAMBERLAIN: Number 8. Emphasize the national policy of pollution prevention by focusing on waste management hierarchy in both the press release and the PDR. That is my suggested changes.

MR. REIBSTEIN: Include some information pertaining to use. I previously suggested methods of doing that, that would protect confidentiality. If you want to say use index, perhaps, that is the specific thing I recommended.

MR. ORUM: I want to stick up for the term source reduction here in number 8. I think that is an important term to use. It is not the hierarchy; it is the total waste.

MR. FEES: Excuse me, Paul. We are taking objections, not agreements.

MS. FASSINGER: Can I ask a clarifying question of Rick? On your use ratio, is that to come from EPA or are you suggesting a change on the form R?

MR. REIBSTEIN: I am suggesting an additional data element on the form R, which is either year to year use differences or base year to current year use differences; the use index that I recommended before.

MS. FASSINGER: Could that be included as one of the normalizing factors?

MR. REIBSTEIN: I have also recommended it in that context, but I am talking here about just required of all reporters.

Actually, the point is that if you then take good production index and use it with the use index, you have good information on what source reduction is happening.

FACILITATOR: Okay, number two, big number two, and part one of that. Any comments?

MR. CHAMBERLAIN: I have a comment. The second sentence, where it says source reduction activities, then recycling and recovery and treatment, then disposal, then take out the word releases, and after disposal add a comma, then emissions and discharges.

FACILITATOR: Any other problems with that one? Okay, number two, part two. Great. Number three.

MS. FASSINGER: I have an issue on item one. Again, there is a model suggested that not all of us have had a chance to evaluate. I would oppose to including a suggestion for a model without that opportunity.

MR. CHAMBERLAIN: I agree.

FACILITATOR: Anybody else, comments on that one?

MR. ORUM: If you changed model to example, that might be more acceptable.

FACILITATOR: If there are no other comments on number three part one, we have number three, part two.

MR. BROMLEY: I was back to part one. Joan, did you say -- I am sorry, I wasn't following. We talked about that specific model that is on the top there, and I am not sure all of us have seen that specific model.

MS. FASSINGER: Correct, and this is the same comment I made on the earlier suggestion with Paul's, that unless we have -- if we are going to recommend or provide any models or examples that are specific methodologies, or specific papers, anything other than kind of generic examples, that the committee have a chance to evaluate these before we would be able to recommend them in this paper, even as an example, if we are going to be that specific.

MR. SPRINKER: I third the motion on that point.

MS. FASSINGER: Many of us have not had a chance to use these or evaluate them.

FACILITATOR: Okay, number three, part two. Great. Number three, part three.

MR. ORUM: Just really briefly, assessing year to year changes is good language to have in there.

FACILITATOR: Number three, part four. Great. Number three, five.

MR. ORUM: On three, five, I would suggest that there are other constituencies besides just the facilities that may have a view that you would want to consult here, both through stories from the communities, you might want to talk to the unions.

There are more constituencies here that should be consulted and those views could be made known in the same manner.

MR. SPRINKER: I would like to second that, too.

FACILITATOR: Okay, issue number four, part one.

MR. CHAMBERLAIN: I think the first sentence should read, provide an easy to use, easily accessible program. Take out the rest of that, to obtain rankings, and add into that, for use by the general public, period.

FACILITATOR: I am sorry, you are going to have to say that again. Change the first sentence to?

MR. CHAMBERLAIN: Provide an easy-to-use, easily accessible program, then add to that, for use by the general public.

MR. SPRINKER: I think we need to -- I understand the issue on maybe just putting out rankings, but I think we need to say what this is for, what the purpose of this is.

It really is for the public to try to do some analysis on what is there. I think we may need to say, as Sam suggested, for use by the general public, or some other to get in the idea what this purpose is. I think it is to perform analyses.

FACILITATOR: Any other comments on that one?

MR. ORUM: This was one, the idea that the public would have a service by which they could get their own rankings, was one of the recommendations of one of the sub-groups that we broke into at an earlier committee. I just wanted to tie that into what this was for.

MR. CHAMBERLAIN: Let me reflect that the reason my comment was added and changed was the word, to obtain rankings, indicates that EPA is going to have rankings available within the data released.

The discussion we had was that the public would have access to the data so they could do with it as they choose, and I liked Mike's term, to perform analysis as appropriate.

The way this read, EPA would provide, to obtain rankings -- in other words, they would provide these rankings and do all kinds of data analysis and provide it.

I think our comment in the past was that the public could do that as they choose.

FACILITATOR: Number four, part two, is there any comment? Okay, great. Number five, part one?

MR. CHAMBERLAIN: I think we ought to reflect a comment in there that they should perform rankings using only normalized data, that adds more credibility to any kinds of rankings that are done, rather than just using just any aspect of the data they choose.

I would propose to insert the term only using normalized data, and appropriate qualifiers.

FACILITATOR: Any other comments on that? Number five, two?

MR. ORUM: Same comment as number three, five, that there are other constituencies that should be consulted.

FACILITATOR: And number five, three?

Okay, I think the next thing that you all have on your agenda is that we have groups that worked on things last time. You divided up into four groups and what EPA planned to

do today was have each of those groups come up for like an hour and 15 minutes each. That is what you are allotted.

We are going to be really careful about the times. If we are a little bit off because we are starting off a little bit later, we will give you the same amount of time and maybe cut five minutes or so off the break.

I think we are pretty much right on schedule right now. We are only about five minutes behind.

MS. FERGUSON: Process question. Are there materials that came out with these, that we should have before we start this discussion?

MS. PRICE: Yes, all the stuff in this whole day was sent out via e mail but if you don't, for some reason, have it, I have got extra copies here.

The first one was the issue I that Linda Brown and her group put together, and I have got extra copies if you need it. I will pass issue I around and then I will start issue II when we start there.

FACILITATOR: One more process question. I am going to be really careful about keeping time. If the individual group wants me to facilitate something for them, or run a questions part, just let me know. I am going to do whatever you want me to do. So, tell me. Group one, come on up when you are ready.

MR. CHAMBERLAIN: Do you want the group leader to speak for the group?

FACILITATOR: However the group leader would like to do it.

**Agenda Item: ISSUE I.**

MS. BROWN: Does everybody have a copy of Issue I at this point and had a chance to look over it?

Basically, we got together via conference calls. First of all, let me introduce the members of my group: Paul Orum, Wilma Subra, Sam Chamberlain and David Fees.

Our issue I dealt with quantities of toxic chemicals and waste generated on site as opposed to off site.

Basically, we took the issue that was presented at the January 29, 30 meeting, and we pulled out ideas.

We had a total agreement on adding the three new data elements in section 8, section 8.8.1 would be total quantity of waste managed, 8.8.2 would be quantity generated as waste on site and then 8.8.3 would be quantity received as waste from off site. Those would be the three new data elements added under section 8.

We looked at what would be the areas of concern if we went on and tried to get these data elements added. We identified that double counting would be an area, increased burden on reporters, and whether or not the originating source of the waste should be identified.

As a group, we came up with the following responses. We felt that the additional documents would help to resolve the double counting issues.

We also felt that as far as an increased burden on reporters, that industry would view the change as a minimum burden.

We also felt that the citizens felt this would further clarify section 8 and would be more meaningful to data

users.

Some of the things that we identified as caveats, however, would be that EPA provide a clear definition in the guidance document as well as in reporting instructions as to what the total quantity of waste managed actually means and basically further explain the break out.

This would also be fully characterized in the public data release, the press release and other documents that are prepared by EPA, to reflect the multiple handling of waste through several TRI reporting facilities.

Basically, that is what we pulled out for issue one and we are open for questions and comments at this point.

MR. BROMLEY: I have got a question, I guess. I see that there may be a difference between the actual quantity of 8.8.1 and the sum of 8.2 and .3, and that is that some material may come on as a product. So, it wouldn't be counted in 8.2 or 8.3, but would be counted if some of that material that came out of the product ended up as a waste eventually. Maybe not. Hold on.

MR. ORUM: That would then be waste generated on site. If it came on as a product -- correct me, somebody, if I am wrong -- and then became a waste, that is 8.8.2, generated on site.

MR. ECK: I made comments when this first came up and I just want to add to them, that the definitions here are crucial to understanding the terms.

We are sort of handicapped in that EPA has not yet really gotten around to defining waste in their terms here.

I feel that these terms are of more benefit to the hazardous waste management industry than they are to perhaps the rest of the TRI reporters.

I have a couple of questions about some of the terms. Let me just rattle them off and perhaps you guys can answer them.

In 8.8.1, total quantity of waste, does that include section 5 releases as waste. Does that include stuff which might be incorporated into products unnecessarily, or is something incorporated into product considered to be product. I am asking for a better clarification of waste.

MR. FEES: The answer to one, yes, the releases to end products; unnecessarily, no. That is the next tier. That is use data.

MR. ECK: Does it include recycling and reuse?

MR. FEES: Yes, it is 8.1 through 8.7.

MR. ORUM: Yes, I think our group agreed it was 8.1 through 8.7, which is what the EPA believed, and I don't believe we diverged from that opinion.

MR. ECK: My concern with that is that it is a definition of waste which differs from the classic RCRA solid waste definition and is going to give a certain heartburn and confusion there.

That certainly is EPA's privilege. There is nothing that says that the EPCRA staff has to speak to or coordinate with the RCRA staff, but it is an issue that I want to raise.

I think there will be some concern to have otherwise fermented releases to the air considered a waste, when waste under RCRA has a very specific and highly regulated defini-

tion.

MR. ORUM: That caveat number one, because you had raised this before, was intended to address that. I think what you are doing is elaborating in a helpful way, for your interests, on number one.

MR. ECK: That is it exactly. Along those same lines, just to move along, please define generated as waste on site.

Certainly RCRA has spent a lot of time doing that and a lot more effort than we have wanted to go into on this committee, that is crucial.

Likewise, received as waste off site, when the otherwise used definition was modified in phase II of TRI, there was a step toward defining received as waste off site. Perhaps that is sufficient, but it needs to be clarified.

For example, you are getting back to the original problem with the original EPCRA, I suppose, with ambient air or ambient water.

In some cases you may be accused of receiving as waste from off site somebody else's waste. Now, granted, there is the exemption for toxic chemicals and ambient air, ambient water, so I am exaggerating a little bit.

I am foreseeing very legalistic problems here, and the term waste managed in 8.8.1, which again was defined fairly clearly after phase II, for the revised definition or interpretation of otherwise used, but which we are now applying in a broader sense.

I am just trying to delineate the issues that EPA needs to resolve. I would suggest we do not resolve them in this committee. I think that is about the gist of my comment.

MR. BROMLEY: Michael just exactly pinned on what my first question was. My first question may have seemed somewhat simplistic, but it really gets to what he was asking for.

For an example, just to give you guys an example, one of our facilities takes in F006, which is a RCRA listed waste, as a feed stock.

I don't know how that is going to be defined under here. Is that taken in as a waste or is that taken in as a product, how we fit it under this type of situation, where we manage it, where we use it as a product.

Those definitions, I think what Michael was talking about, are key to this, to being able to fill this out.

We are going to have so many questions with various materials coming onto our facility that could be or could not be a waste, depending on how the definition of how it is managed, how it is produced, that I echo that very, very strongly.

MR. FEES: To answer Corey's concern, right now you get facilities that have unique situations where they seek guidance from the hot line, from EPA.

That is going to continue. Would this raise that many more? Would there be a flood of oddball cases that would overwhelm EPA by including these new data elements.

There are going to be gray areas. It seems like you can always find some kind of weird exception that, on the surface you say, well, is it a waste or what.

MR. BROMLEY: This might be a foundation for them to

give us guidance, is what I am looking for. They might need to set up some foundation first, because their guidance can go all over the board.

MR. FEES: The onus on EPA, by adding these definitions -- and this also answers Michael's question -- if you add that, then you are going to raise some questions.

The EPA needs to be prepared -- and they have been in the past, and sometimes they will get a question that they never even thought of and they do their best to provide guidance on it.

I think that process will continue. Maybe we need to be explicit in our recommendation that it is imperative that EPA incorporates that into their process.

I believe in EPA enough to know that they would do that. If questions come to them, they have got to do something about it.

MS. DOA: We actually have a question we just looked at for Michael.

MR. ECK: And I am still waiting for an answer.

MR. FEES: I don't see these terms as so bad -- I definitely see them as imperfect, but I don't see them as so bad that these specific things can't be addressed.

MR. BROMLEY: I would agree with you. It just needs to be coupled so they lay some foundation work as they put these forward.

Then as those specific individual items come up, then they can answer those questions, but they need to have a foundation.

A lot of times they don't have foundation and you will get 10 different answers, depending on who you call at the EPA hot line.

MR. LATIMER: I guess I just wanted to try to bring a little quick clarification to what would be included there.

We discussed this quite a bit a couple years ago at CMA. I think the intent is to include things that are received as waste for purposes of waste treatment recycling or energy recovery.

So, in other words, those streams that directly get reported in section 8, if you receive a 3.6 waste(?) and use it as a product, that would not be included.

I agree that a lot of this will come out in the proposed rule or whatever mechanism comes on down the line. I would just suggest maybe clarifying that, for purposes of waste treatment recycling or energy recovery would be a simplistic way of trying to answer your question.

MR. REIBSTEIN: EPA has the option of using the term waste and distinguishing from RCRA. They also have the option of looking at it from the other side, using the term product and characterizing from that point of view.

That gives you the choices of using non-product output, byproduct, secondary product, by product as product, and that will give you the flexibility I think Rick Latimer is looking for. I just move that EPA consider that option as well.

MR. SKERNOLIS: I wasn't on this group. I just wanted to make a minor but very, very important point to some sorts of categories, for the objections or questions, item

number three, that we change the word source to sources.

People should understand, for example, we have 14,000 customers and a typical facility might have several hundred or several thousand sources of a constituent identified into section 8. We would certainly not want to see that creep into this system for reporting purposes.

MS. FASSINGER: I think the concerns about consistency with RCRA and the need, the urgent need, for some definitions for what the waste is, I would recommend that in 8.8.1 the language be changed to read, the total quantity of waste generated.

I think if we focus on generation, we might be able to address the first item in possible objections or questions, which is the double counting issue.

Consistency with RCRA would also help adjust a lot of those issues, I believe.

MR. ORUM: If I can ask a clarifying question of Joan, how would that then differ from the current 8.8.2, quantity generated as waste on site.

As far as I am concerned, that is what that is. The total quantity in waste managed is something different. It is the sum of both what was generated on site as waste and received as waste from off site.

MS. FASSINGER: I think that one of the key items of concern is recycling. I don't see this being a huge issue in other areas where you are tracking where you are sending a material, say, for treatment.

For recycling, because there are large quantities, it is a smaller quantity going through a cycle several times.

If you go on an annual basis, it ends up being a very large number, misrepresenting what is actually in the system at one time.

MR. ORUM: That was the topic of the other subgroup that didn't meet and do its homework.

MS. FASSINGER: It might actually be better to discuss the group II and then come back to this. I agree that this is definitely linked in, and might provide some of the answers to better --

MR. ORUM: Certainly resolution of that issue would help people to interpret this, if they wanted further clarity.

MS. FASSINGER: I agree.

FACILITATOR: Are there any other comments on number one, issue I?

MR. FEES: Any objections to sort of this vein of development of recommendation?

MS. FERGUSON: What are you asking?

MR. FEES: We are saying add three new data elements, and we have got some supporting language that could go along with that as a recommendation. Is taking this, which is sort of characterizing what we talked about, and sort of now formulating it into a recommendation, going against anyone's feeling of where this topic should be going?

MS. FERGUSON: If you are asking for a vote on the concept --

MR. FEES: Not so much a vote, but objections now.

MS. FERGUSON: I guess the only one that I have has just been expressed and that is, I really would like to see



how the recycle issue falls into 8.8.1 before I know if I am comfortable or not.

I don't disagree with 8.8.2 recommendations at this point in time, but I just have a reservation until we see the other system.

MR. FEES: So, you are saying essentially, reflecting what was said.

MS. FERGUSON: Yes.

MR. FEES: Does anyone else have that particular concern?

MS. FASSINGER: No, I agree with Susi. I guess from a process standpoint, if we intend to make this into a recommendations paper, I would suggest that we maintain an objection or maybe just an issues section on each recommendation, to make sure that the additional caveats are included and addressed.

MS. FERGUSON: I think from a process standpoint, I would be more comfortable getting through all the groups and then coming back with the broader, now that you have heard everybody, how do you feel about these different issues from a process standpoint, myself.

MR. CHAMBERLAIN: I was just going to really echo what Joan said in terms of, conceptually speaking, I think our group has the right components there.

What is going to be most important is the clarification and the definitions and addressing some of the comments that were presented during the discussion phase in the last 10 or 15 minutes.

I think Joan's idea about having maybe an issues under each of those categories later on might be helpful.

MR. ECK: I do have a comment. As part of this recommendation and understanding that Maria has said EPA is moving forward on some definition of waste, I would like to call on EPA to consider these data element changes in any separate attempt to define waste and waste management and waste generation under the pollution prevention act or any other EPCRA.

Keep this stuff in mind when making the definitions, because I think we need those definitions before we can go forward with data elements like this.

FACILITATOR: I think if there are no other comments, we are going to move on to number two, because number two seems to be -- oh, I am sorry.

MR. LATIMER: I would, I didn't hear much debate on number three under the possible objections or questions, whether the originating source of the waste received off site be identified.

I guess I wanted to see what questions people had. Ed, did you mention that you would have a concern with that, in terms of identifying that in your industry? Would that be a huge burden?

MR. SKERNOLIS: Yes. I mean, as I said, I wasn't on the committee. I was just trying to modify someone else's work to add the word sources. If I was on the committee, I would have made it not a question, but a statement, that originating sources should not be identified, because of the burden that would create.

MR. FEES: Linda, could you elaborate on that

thought, what we as a group were suggesting that we do?

MS. BROWN: Wilma, do you want to clarify that for us?

MR. FEES: Wilma, did you add that in? Okay.

MS. SUBRA: From the citizen's perspective, not necessarily at the commercial facilities, because that information is available easily to get, but at industrial facilities, when they are taking in waste from off site and actually doing something to that waste on site, it would help the citizens who live around the site to know where that waste is coming from.

It may be coming from their sister companies in other states, or it may be coming from other commercial facilities.

MR. FEES: I think it was posed as a question because unfortunately Wilma couldn't join in on our conference call because she was stuck on an airplane.

So, it was posed as a question to get her input into it, but the rest of our group didn't really discuss this as here is something that could be a recommendation.

So, it is sort of in the question form and it is sort of out there for other people to say, I like that, or here are the problems with it.

MR. BROMLEY: If I may make just a quick suggestion on that, is that the waste management facilities such as Ed's, SIC code, be exempted from any sort of requirement for that.

That would limit it to what Wilma is talking about, is looking at facilities that aren't necessarily in the total business of waste management. They get exempted by their SIC coverage. That is totally unreasonable, to have them list out there what those sources are.

MS. SUBRA: I would say if that is their primary business. Some of the industrial facilities have a large waste disposal operation on site, but receive it from other industrial facilities.

MR. FEES: That would have to be fine tuned, but that would be the bare bones of it.

MR. ECK: Two concerns with this. I am intrigued by the idea of it, as I am with adding any additional data.

One concern is, as always, I would not want a facility reporting information that it did not -- since you have to sign this thing -- could not absolutely verify, did not absolutely control.

In this case, in most cases, probably, you would know where the waste was supposed to have come from. As with other issues, I am very uncomfortable with one facility reporting about another facility's business or transportation.

Second issue, just a technical one. I have had a lot of trouble with the Automated Form R from last year, in the 62 section, losing data specific to off-site waste. It has been a real nightmare.

It has been a nightmare at all levels, and I don't think that software error has been fixed, or at least I haven't seen the newest version of the AFR where it was fixed.

I think if we add this data element on the other end, we are probably going to strain the computing capabilities here of EPA's contractor.

MR. REIBSTEIN: I would just like to initiate the idea here of if not adequately reported elsewhere. If the information about waste being received is not adequately reported elsewhere, perhaps that is when we should receive it. If it is already being adequately reported elsewhere, perhaps we don't need to impose the burden.

MR. CHAMBERLAIN: I would second that comment. As Wilma pointed out, under the RCRA manifest system, I mean, you have a clear tracking system of where that waste originates, where it goes to.

If you exempted Ed in a special exemption there, I think it should apply to, as Rick said, any other exemption or apply to any other category where the material has already been documented and can be readily tracked, such as under the RCRA manifest system.

MR. LATIMER: I just wanted to comment. I am not so sure of the burden of other companies, since we haven't really discussed that.

I guess I am a little concerned about duplicative reporting, because I think a lot of the information would already be reported from the sending facility on their TRI form. I think much of the data would already be available from that aspect. I just wanted to mention that.

MR. ORUM: I just wanted to comment on how easy this would be to report this if EPA did have a consistent facility identifier system for all facilities in the country.

MS. FERGUSON: I guess I would like to express the view that I wouldn't want to include this until we really understood the ramifications of that this does, not only from potential extra effort, but also how we would use the information and what would it do to our information system and different things.

As a state who gets an awful lot of forms, then the information on the forms and how we use it, let's just make sure that we really have a need for it.

If we are saying with one breath this information already exists, then part of me says, why put it here, too.

I wouldn't go for a recommendation at this point in time that says add it, until we really knew what that meant and knew the value of it, and how we would be using it, and if it would be available to the public.

To get it in a form that goes into a file cabinet that isn't on the internet or isn't available to the public doesn't meet your public need, but gets at another piece of information that costs time. We need to understand more about this first.

MR. SKERNOLIS: Just a quick point. I appreciate the support for recognizing the problem of our industry sector.

In response, I would say it seems to me this is not necessarily a straightforward issue for non-commercial waste management facilities either.

In any circumstance where you have multiple suppliers of a constituent -- and remember that Section 8 doesn't identify waste streams that are recognized and recommended. This says a toxic constituent category.

Any time you have multiple suppliers of that toxic

constituent for any reason, you are going to have to do a disaggregation process in some way under this data element, both on-site and off-site, as well as maybe identifying who was a supplier of that constituent and who wasn't.

This means you would have to maybe fingerprint waste streams in the same way that we have to fingerprint RCRA constituents in waste streams. You would have to fingerprint TRI constituents in waste streams that are received off site.

I mean, there are all kinds of implications for this data element that I think Susi is raising, that are very valid and I think require some thinking through before you rush to judgement.

MR. SPRINKER: One possibility to look at might be for those industrial facilities that receive waste which they then use to either turn into product or whatever else, from a lot of different sources, maybe one thing to consider is, do we limit how many sources do they need to perhaps list

If you are receiving something from 300 sources, but three sources are getting 95 percent of the stuff coming in, maybe it is those three that are really the important ones to know, if we decided the EPA needs this kind of information.

So, you are not going down to the absolute finite, you know, third digit past the decimal point.

FACILITATOR: I think what we are going to do is, in a minute we are going to take a break and we are going to have group II come up and do their part.

We will then go back to number I and II and do essentially what we did this morning. So, put them up there and get your comments, disagreements or problems written down.

If one person has a comment, and everybody concurs, we will know that, if 90 percent of the group feels this is a problem.

We are going to try to go through -- after group II gets their opportunity -- we are going to try to go through that fairly quickly again so that we then have time for groups III and IV.

We will take a 15 minute break and start again in 15 minutes exactly. Please come back.

[Brief recess.]

MR. FEES: We are jumping to issue III. We are going to come back to II. The folks of II need to caucus because of the inability of them to get together before.

FACILITATOR: I think you have all heard by now that we are going to skip to issue III.

**Agenda Item: ISSUE III.**

MR. STEIDEL: Because Issue III is really ready to go. We took a little bit different tack than you heard this morning from issue I. We are going to lay everything back out for you again and ask you to reconsider.

We have four pretty strong alternatives from the last meeting, and then refined, and then we tried to eliminate three of them, actually.

This group was Krisztina Bordacs, Susi Ferguson, Ken Geiser, Ed Skernolis and myself. We did all of this by e mail, so we haven't talked to each other.

What I am going to try to do very quickly is overview what we talked about last time in these overheads, and

also talk a little bit about alternative seven.

Alternative seven isn't really an alternative. It is another variable to this issue. I would ask Ed to maybe clarify any questions that anybody has on that.

Then from you all as a group, we will go ahead and refine what we have got up here, if Fern will facilitate that. We will try to keep some notes.

We will restate alternatives, if there is a need to do so and then, again hopefully we can reach a consensus. If we can't reach a consensus, maybe we can go ahead and multi-vote again, or do something to eliminate these issues, so we can get down to a specific action item, so that the work group can go ahead and develop that and bring that back to you all as a recommendation.

One thing we are trying to keep in mind as we do this was Fred Hanson's statement in the letter that we all received about the goal of the PDR committee, to improve the right to know information and to streamline.

So, again, for those of you who want to relive this painful memory, January 29 and 30 we came up with a list of alternatives, and we had the pros and cons of the top four vote-getting items, and the voluminous text that you have on these items.

We could not find consensus, so we were broken out to prepare this written summary and we will have discussion today.

The first alternative that scored well was net to the environment. This is reported in the treatment efficiency of a POTW and, as we are going to discuss, also the treatment efficiency from a centralized waste treatment facility beyond the publicly owned facilities.

These were the pros and cons that we had indicated that the facilitator had captured. I think it pretty well splits out as one side of the house is we can get more information, we can get better information.

There is a lot of question about, again, how the data will be generated and the quality of that data and whether or not it will provide the information you are looking for.

That was alternative three, in a nutshell. Alternative four was to retitle section 8.7, and specifically in re-titling 8.7, we were going to title that as transferred for treatment off site.

This would simply put that information in section 8.7 and would be delineated. Again, we had some of the same pros and cons types of arguments that we had with net to the environment. I will try to flesh that out here in a minute.

Alternative five would subdivide 6.1 and 6.2 and 8.7, so that you have got the transfer to a publicly owned waste treatment unit and the transfer to a privately owned waste treatment unit basically broken out in 8.7, maybe as 8.7-A and B.

Again, that is the pure transfer. That is not the efficiency of the transfer, but the pure transfer, and provide that information.

That is just restating what is already done and provides a little bit more information, but it is no new informa-

tion.

Finally, my favorite is using TRI as a new sector. I have to say I had to go down to Arizona and face all of our people and explain this to them. It wasn't a pretty sight.

Again, there are pros and cons for this issue on both sides. We can further flesh this out.

Again, it would have POTWs reporting and I guess I could ask for a little bit of ID here. I guess you are wanting the output of the POTW to report as opposed to the input treatment efficiency. I guess it was the output is what you are looking for?

MR. FEES: I think that adding this new facility, it would be like a commercial waste treatment facility in that they receive these amounts in and then, in section 7, you do the efficiencies of your system.

Then in section 5 and the other sections and 8 would list the outs, whether it was the sludge to a landfill or discharge to a stream.

MR. STEIDEL: An important issue in all of this that Ed brought up is that we also have to remember that throughout this we want to advance the issue of occlusion prevention in every one of these alternatives. This doesn't quite get to it either.

Then, as we discussed this a little bit at the end, if the concept of transfer of net to the environment and also reporting or breakout the reporting, works for POTWs, then why doesn't it also apply to a centralized waste treatment facility.

Well, that makes perfect sense. If you are going to take your waste and you are going to move it from company A and give it to contractor B and they get this waste in, a portion of that waste, if it is an organic constituent, will be destroyed.

It will no longer be the constituent that it was when it was transferred. So, the idea was, well, if it works for POTWs, why shouldn't it also work for privately owned waste treatment facilities.

What we have done here -- and it went out in the document and it is further explained on page three in the summary -- is to highlight what we are calling an alternative, but again, it is not an alternative. It is just an improvement to the overall concept of reporting waste transfer that has been treated and the net release is what we are talking about.

We have got a lot to prove for this one and we don't have any comments.

Again, more additional prose for what we are calling alternatives. I would be happy to elaborate on it if anyone has any questions. I don't know in which direction to elaborate because it is basically a concept.

I can give an example if people want to try to get a sense of where it is coming from.

MR. SKERNOLIS: If you take a company like somebody who does a lot of on-site treatment. Dow Chemical, for example, does a lot of on-site incineration of its organic wastes.

They will be reporting within their TRI forms for

any organic constituents they generate that are TRI constituents.

A treatment and then a destruction and a total release to the environment through the emission or discharge from those treatment facilities, but in the case of an incineration, what they are going to assume, at least, is that they are meeting the requisite destruction standard for those organics.

They are basically able to take that number and disaggregate it between destruction and eventual release in terms of the organic constituents.

If they take that same constituent in a waste stream and send it off site, you have none of that information.

You simply know it is going off site somewhere for treatment. All we are asking, I think, or what I was suggesting here is, since the destruction efficiency is standardized across all incinerators, the off-site incinerator doesn't have a lower destruction efficiency standard than the on-site, that you can simply take that standardized destruction efficiency and plug it into your system, either at the generator's end or within the TRI, and simply say, I am sending this organic constituent off site to incineration.

I know it gets at least four nines destruction. Therefore, the net release, if you will, is only going to be .0001 percent of the constituent, because it is a regulated destruction efficiency.

In fact, it is more rigorous than the treatment standards for POTWs, which based on the discussion last time, can range all over the place, depending on the nature of the treatment methodologies at the POTW.

There are a couple of other hazardous waste treatments that have that kind of rigor to the numbers for a sufficiently rigorous treatment efficiency and destruction efficiency, which the office of solid waste can provide to Maria's folks.

They can all be standardized and plugged in. So, all anybody has to do is simply say, if I sent it to this treatment, this is what the net to the environment is, because we know what the destruction efficiency is.

The additional work on the generators part may be very minor. It is just a question of restating what they are already doing.

The information that is available to the public is sufficient. It seems to me the big thing that the public gains and that everybody gains out of this is that no one has to interpret whether the waste was destroyed or whether the waste was released.

No one has to guess. No one can take that data element that is currently in the TRI that says, sent off site, and has to say, well, let's assume that it was all released or let's assume that it was all destroyed.

You will have a factual basis for making the assumption that .0001 percent was released and 99.99 percent was destroyed.

In the handout is an example, too, of this exact concept, the one Ed has talked about, that I have talked about. It was used in the EPA sediment point source inventory

this year, too.

EPA, in looking at how to determine what has been released from a POTW, or a privately owned treatment works for the purpose of sediment criteria, used this same idea of what is actually destroyed in the process itself.

It is not anything that is viewed different or more radical in concept. I think it will give us better information if we as a group work together and find a way to synthesize some of this.

So, in the time remaining, I guess we want to go over the alternatives one more time and let you all add some refinements to it.

Then see if we can, by consensus or some other way get it down to a concept that this committee can work with. We would be happy to once again rework that and bring it back to you for your final look at it.

MR. CHAMBERLAIN: Just as I guess sort of an opening comment and really a basic premise that I have to operate from, I guess, from a legal perspective, is that I doubt if our company would allow me or my executives to take responsibility in the TRI certifying what goes on at a POTW, and for us to assume -- Ed makes a valid point about the four nines destruction, et cetera, but you don't know about the waste water treatment issues.

We would have to draw a bright line around our facility and only take accountability and responsibility for what goes on inside our facility, for what we send to the other facility.

From that point on, from these options presented to us, I could not, as a basic premise, support anything that I would have to certify on a form as to what is happening at that POTW and take responsibility for that.

MR. SKERNOLIS: Could I respond to that just as a point of clarification? My recommendation is not necessarily that the generator certify the destruction efficiency of the treatment.

It is that they simply identify the constituent and the treatment method that constituent is going through.

EPA, for the purposes of calculating, then, net to the environment can generate that number through tables established for the destruction efficiency associated with that treatment.

In other words, it is a question of just getting the accurate information. You don't have to necessarily certify to what your releases are after all the treatment is completed. In other words, there are different ways to skin the cat, is all I am suggesting.

MR. CHAMBERLAIN: Sometimes when you skin that cat, that rascal can get very mean. My momma once told me watch out for skinned cats.

I think that information is already provided. We already say what goes off site and to what system it is going to. I don't see any benefit to what you are providing there.

MS. FERGUSON: I had a question. I was going to ask for a clarification on how you could go about reporting this, and who would do it and how would it fit into the reporting system. I think Ed took care of that question.



MR. SKERNOLIS: One more response to Sam. One of the reasons I raised this in the first place was the notion raised by Maria at the last meeting, that perhaps the safest thing to do is assume that all of that material is released to the environment.

You are essentially misleading -- somebody is being misled somewhere in the process, if the built-in assumption is zero destruction is occurring.

The alternative to that is to assume somewhere in the process that a certain amount of destruction is occurring. At least in my mind, looking through the treatment technologies that are out there, and the destruction, some of them are fairly rigorously established.

I think it is a very safe and legitimate assumption for EPA to make that an organic constituent going to an incineration, for example, is getting four nines destruction.

I don't think that is misleading. I think that is the most accurate thing you can tell the public in the end. That is all.

MR. CHAMBERLAIN: I guess to respond to that, Ed, if you are saying it is EPA's determination as to what efficiencies, what is going on at that POTW, and they make that information available to the public based on a set of data that they are privileged to or have knowledge to, that is fine.

That is EPA's responsibility. But I don't want to accept that responsibility as the owner/operator of that facility.

I do agree with you, that as it is currently structured, the public, you know, really doesn't -- they are being misled by what is being transferred off site. They need some additional information as to what is happening to that material.

MR. STONE: I agree. We send a lot of material for incineration and the four nines works very nicely. We also send a lot of stuff to treatment plants that do chemical oxidation, that then goes to a POTW.

By permit, they are allowed by put X parts per million to that POTW. Based on their stream, they could destroy a hundred percent or four nines of my stuff, or based on the stream they could destroy none of it, because of what it going and the millions of gallons they are sending off site every day.

If they have got just a small amount that they are sending off site that day, they have got to destroy myself literally completely.

If they have got millions of gallons of stuff going off site and my constituent is the only one there, they can do it purely by dilution of the POTW and they have done no destruction of my material.

MS. FASSINGER: I have to second Sam's sentiments. One action I didn't see up here was for us to maintain the way we report now and then have EPA and the data release perhaps apply these efficiencies.

As far as the signer of the TRI form R being accountable, I second that. I mean, there are a lot of legal implications.

If the treatment facilities are also reporting, a

lot of that information will come out, excluding the POTWs.

MR. SKERNOLIS: May I just say, because we are doing at least four nines destruction, you will not see many form Rs filed by treatment facilities for that constituent. We are not going to hit 500 pounds.

That is why the -- part of the argument is that the information is getting lost, as to what is happening to a constituent. We are putting out numbers to the public that those toxic constituents are surviving.

MS. FASSINGER: It would seem that if you are getting less than 500 pounds, then it would seem that those numbers wouldn't be as significant as if we were reporting large numbers.

We could neither certify nor have a plant manager certify your treatment destruction or even the methods that you use.

MR. SKERNOLIS: I appreciate that.

MS. FASSINGER: Once we hand that material over, we really don't have the control. I mean, we have intent of how we want it to be managed, but we could not certify that you have managed it in that way.

MR. SKERNOLIS: But your objection is just to the certification process, not to the information being better qualified somewhere in the system, even if it is at the EPA end for PDR purposes or something like that.

MS. FASSINGER: If the EPA does that in the PDR, I don't think anybody has a problem with it.

MR. SKERNOLIS: The fundamental message I am trying to get out is a value to treatment on some of these where the material is destroyed and there is no consummate release of those materials to the environment.

That is just as a factual matter, I think the public ought to know that and they can draw their own conclusions about that.

MS. FASSINGER: The PDR would be an excellent place for that.

MR. ECK: I guess I am agreeing with Sam and with Joan here. I just want to cover the whole logic real early and quickly.

As I said before, I think facilities should report what they know that happens on their facility and what they control.

Given that, I think that facilities should not report 6-1 treatment facility at an off-site POTW. They should not report 6-2 treatment efficiency at an off-site hazardous waste treater and they should probably not be reporting an 8-7 treatment off site when they don't in fact know what actually happened.

I would support alternative four, to retitle section 8.7 as transfer for treatment off site as a more accurate representation of what the person signing the form Rs at my facility believes has happened, and in fact has followed up to ensure has happened within RCRA guidelines.

I would also support Joan, that you know, given that EPA has, in fact, an endless budget and infinite resources and, therefore, the PDR can be compressed to be made available to all citizens, I think it is well within the type of analy-

sis that we have been recommending for them to target specific 6.1 POTW chemical efficiencies and specific 6.2 efficiencies, and report them as representative or illustrative or for analysis.

I believe now that we have the hazardous waste industry, for the most part, reporting even if in fact they report very little release, they are still reporting management in some sense or another, there will be a particular amount of facility-specific data there.

MR. SKERNOLIS: I think there are a number of people from industry saying, you don't want to have to certify and take responsibility for what happens at some other facility. Therefore, EPA should calculate this number.

I think we should play out what that would really mean and whether you really want EPA assigning those values to a facility, or a public interest group assigning those values to a facility.

I know that when the environmental working group did that, they used estimates. They said 25 percent pass through or something like that.

It would be very helpful to have information on the particular facilities, POTWs, and their efficiencies and the chemicals, and use some matrices that could be used in a computer program to calculate that out.

Then, wouldn't the industry groups come back and say, here, this is wrong. You calculated it and it is wrong and it is wrong for this reason.

We would have sort of an endless road of what is wrong with the mechanism that you provide to make those calculations.

MS. FERGUSON: I have a question for Joan and Sam and Mike. If the box, instead of saying net volume to the environment, instead of reading that way was, like 7 is now, an estimate based upon standard tables, if you are testing two, you give the total that you ship off to wherever you ship off.

Then you are assigning a percentage reduction efficiency or something as an estimate, based on perhaps a standard table developed by EPA so that it is easy to get.

Would that help negate some of your concerns?

MR. CHAMBERLAIN: Let me respond and then Joan and Mike can add or subtract or deny. Susi, I guess in terms of - let me respond to the estimate factor.

It could probably make more reasonable estimates than the other groups. They would be closer to being able to make those estimates in dialogue with the POTW if that were the case.

Again, this certification and being held accountable for that number put in there, that still would present some bit of concern for us.

I do agree that there needs to be a better way to, a, determine and, b, report what goes on at the POTW to calculate what Bob has presented here, this net to the environment.

I don't think it should be on industry's shoulders to do those calculations. I think it should be on the POTW's shoulders and responsibilities to make those determinations and report accordingly.

MS. FASSINGER: I pretty much second, Sam. Again,

getting back to, even if it is an estimate, there is still a legal obligation on the part of the signer of that form to make sure those numbers are correct.

Again, with good intent if you send your material to be sent somewhere to be managed and you expect a certain treatment efficiency, and say I send it to Bob and we have the 100 year flood and his facility floods over.

That is something that I really don't have control over, even though I have good intentions sending it there. But I agree, that it would be good to have that information.

I guess if we ask EPA to provide that -- if they have the tables and they want to provide those factors in the public data release, that is something that we will have to live with.

We can provide input or POTWs, if they see that the data or the methodology maybe needs to be modified, that would be done through the computer programming and the data management.

MR. FEES: I am starting to smell another alternative here.

MR. SKERNOLIS: Just one more comment. Recognizing the concern with liability and signing the firm, which I think is very legitimate, as a practical matter, I am not aware of any treatment facility -- whether it be POTWs or waste treatment facilities -- where the generator's identity is attached to the constituent, once we pick it up in the reporting system.

I don't report otherwise use of a constituent by generator on our TRI forms. I report I otherwise use 100,000 pounds of TCE.

There is no generator identification associated with it. Whether you gave me 5,000 or 10,000, whether I do 99 percent destruction or 50 percent destruction because I forgot to light a match, there is no identity attached to that TCE at that point.

That actually was one of the reasons why I suggested this, is that there is no back tracking to the pollution prevention side of it once you simply say, I have sent it off site.

There is no way for me to say, GM has got it destroyed at six nines and Sterling has got it destroyed at 75 percent. That is another piece of information, it seems to me, that is lost to the public by not identifying that the generator is -- I am not saying you have to certify it. I understand that point.

It seems to me that somewhere GM has, as its management method for that toxic constituent, decided to destroy six nines of it through a treatment process -- remember, if you are doing it on site, you are going to report it. All I am saying is if you do it off site, report it, too, in some way. That is valuable information that the public picks up about GM, as well as the fate of those constituents.

MS. FASSINGER: Unless we assign radioisotopes to our waste stream or fluorescent dyes, you cannot track that molecule. I know a lot of groups want to be able to do that.

We can track the overall management of the system. If you are reporting your management, you will be reporting

your releases. If you treat that to 99.9 percent, that will show up, except for your very small quantities, as you mentioned earlier.

MS. DOA: I just had an editorial comment, or maybe a factual comment. I just wanted to read something from the reporting package that I think pertains to some of the discussion.

Reporting transfer 6.2 which are other off-site transfers other than POTWs, says you should report the transport based on what happens to the majority of the material.

Then under column C for 6.2, enter one of the following codes to identify the type of waste treatment, disposal, recycling or energy recovery method used by the off-site location for the reported toxic chemical.

You must use more than one code for a single location when distinct quantities of the reported toxic chemical are subject to different basically waste management activities.

That basically says that you should use the code that, to the best of your knowledge -- that is all that is required, the best of your knowledge, that represents the ultimate disposition of the chemical.

Also, for transfers off site other than to POTWs, if you don't know what happens to the chemical off site -- going off site you don't know how it is managed, you are supposed to use M99, which is unknown.

M99 is grouped under the disposal category, not any of the other chemicals. Just as background, I hope that is useful.

MR. CHELEN: Much of what has been said on this side of the table sounds pretty reasonable, but would you collectively support, then, having POTWs report?

MR. CHAMBERLAIN: Yes.

MR. STEIDEL: I need to go back. One point that was made here, that is very, very important, is that there is not identity to a TRI constituent in a mixed waste stream.

That is what makes the whole concept of trying to report in a conventional POTW -- I am not conventional; I will tell you that right now -- with a conventional POTW, that is what makes it impossible to report.

The volume of constituent that goes into a POTW is more than likely coming from a residential or a commercial source, not an industrial source.

MR. ORUM: If you were the 10 percent of facilities that discharge to the POTW might be TRI reporters and you have got 90 percent of your screening coming in with toxic chemicals that are not reported.

It is very useful to know a little bit more about what happens to TRI discharges. Then we also have to keep in mind the interest of some of us, anyway, in knowing about all those other discharges and what happens when they come from residences and other commercial establishments.

MR. STEIDEL: But you can't know everything. Unfortunately, there is no way you can know everything. When you try to break that data out, it is more than you can reasonably expect.

MS. FERGUSON: I am going to try one more time. If

the form automatically calculated this value for you from a pre-set table, would that eliminate some of the objections?

Is it that if you are given the actual value you are transferring off to the best of your ability, but then there was a carry forward in terms of either the mechanics of the form or the tables -- it just seems that every April I pull values from tables for another form that I have to sign, too, and I am not necessarily involved in the development of those tables.

I can look up and pull a value and say I got it from that place, and sign my name to it. I am just trying to figure out if there is a way to bridge some of this and get at information where it would come out in the system.

I really don't see, from a holistic view, that I am going to pick it up on the waste side coming in. Unless you have it coming out in the PDR -- if it comes out in the PDR from EPA, you might get it for the state of Texas. You might get it for a particular industry. I don't know how you respond to what happened with respect to independent facilities. So, I am just looking for bridges.

MS. FASSINGER: We would not be able to be willing to certify that, if the indicator or the table was added on after the certification, somehow --

MS. FERGUSON: If all you are certifying is the amount you transferred off site.

MS. FASSINGER: Which we do now.

MS. FERGUSON: Yes, and if it calculated out and had another value from that volume --

MS. FASSINGER: We would not be able to certify that second number.

MS. FERGUSON: If you weren't required to?

MS. FASSINGER: Even if it did it automatically, if that ends up in my report, I am still signing for that number.

MR. SKERNOLIS: Joan, I think we are splitting hairs here. I think what she is saying is that if you have this constituent and this code, you may assume four nines destruction.

All you are certifying is that you are following the guidance in making the assumptions. You are not certifying to the performance of the treatment facilities.

MS. FASSINGER: I would like to have a legal analysis of it. I really -- I do believe, and I think Sam agrees, that there are significant legal issues if you are putting a number down.

MR. ECK: On the two issues that we have talked to here -- Susi's first -- there is no way I am ever going to be comfortable talking about the performance of another facility, nor do I think that information is useful in the context of TRI.

TRI is useful as site specific primarily. It is community right to know and the community -- please argue with me off line -- is generally, in my opinion, the community around the facility.

I am certainly concerned what happens in Louisiana, especially when I send my waste down there, but I am a lot more concerned what happens in Delaware, because I live there and my kids breathe the air there.

I do not want to certify the performance of the Wilmington, Delaware public treatment facility or any public treatment facility that my facilities send waste to.

Likewise, I don't want to certify the hazardous waste industry. I don't even want to discuss it in a separate attachment which is optional, which is not certified, which most people would not be required to file.

I mean, Susi, there is no way you can make me happy with this.

On the second issue of should POTWs report -- I am trying to say is not can you not build a bridge, I will blow it up if you try.

MR. CHAMBERLAIN: That is another way to skin a cat.

MR. ECK: On the second issue of should POTWs report, I am not as hot for this as I was last time. I think there are significant technical issues to be solved, which Bob has brought up at length.

However, I see a lot of the POTW waste now -- and the Clean Water Act may change that -- is essentially hidden in the larger waste stream.

So, the technical objection is, to my way of thinking, the reason for trying to report. It is very hard for me to go back to the facilities which are discharging to army federally owned treatment works and identify what they are discharging, so that I can figure out what I can do for pollution prevention, because right now there is no information coming in.

Right now we are still running our own treatment works, so we would not be reporting as separate treatment works.

On the other hand, we are pretty much reporting what we do on site already as federal facilities, to the best of my knowledge.

I would like to be able somehow to capture that information. I don't know how. I realize that a lot of what goes into a public treatment works is, in fact, from households and very, very small businesses. I still would like to find some way to capture that information. I just don't have an easy answer.

I would not like to see this committee, in its very limited scope, take a stand against POTW reporting, even if we don't take a stand for it.

I think the issue needs further study and it should not be dismissed out of hand.

MR. CHAMBERLAIN: I still agree with the legal issues associated with the certification. If you read the certification, it has some degrees of flexibility that I might be able to work within. Again, I am not an attorney, so I will still have to turn that over to more legal guidance.

If the EPA were to provide tables, as Susi proposed, where you did the EPA validated look-up tables for treatment efficiencies at a POTW, and you applied that particular treatment efficiency to your form for the materials being sent off site, it says in the certification, reasonable estimates using data available to the preparers of the report.

So, that information would be available as provided by EPA, which would give me some comfort. Again -- I forget

who made the comment -- it is each site has its own site specific treatment efficiencies.

You still get a general bit of information but I think more specifically you are going to get the best information from the site itself.

MS. FASSINGER: I would like to address the POTW. Maybe a compromise would be that after the legal analysis, if we did utilize the tables, and along with that POTWs did report for the information that they have, granted, and I don't see a big difference between POTWs and waste management facilities, waste management facilities don't know everything that is coming in either, but you are still going to be reporting.

Perhaps if POTWs are brought in with some conditions or exemptions or caveats, that they only report what is going out that they are analyzing for, for water quality purposes, it would appear to me that the public would still get much better information than what we have now.

MR. SKERNOLIS: We took the position during EPA's evaluation of expanding the number of sectors that would be brought into TRI, that EPA was beginning to divert attention away from the generators of the toxic to the managers of the toxic.

That was going to have implications for the entire system, where the focus would be and what some of the reporting mechanisms were going to be in order to get that information out to the public.

I am not arguing against the kinds of arguments Paul was raising and others raising about the public wanting this information.

I would caution the folks on the generator side of this issue, that once you start expanding the scope of this to bring in particularly POTWs which are operated by municipalities by and large, or municipal authorities, then I think what you are almost inevitably asking for is supplier notification for your waste streams.

They will not bear the burden of reporting. I can guarantee you that EPA and Congress will not transfer the burden of reporting to municipal governments.

I see Susi shaking her head and I wouldn't be surprised if Maria is shaking her head, too. You are lucky with the hazardous waste management facilities, because we don't have the political clout to force the system back up river and make you report and make you profile your waste streams to us and identify what TRI constituents you are reporting to us. They do and it will happen.

MR. STEIDEL: Under the general procurement regulations, if you were to require POTW reporting, POTWs would simply amend the ordinance and every industry would report every TRI at a frequency of sampling that would probably be very burdensome.

MR. SKERNOLIS: The annual analytic costs would be in the billions of dollars. We estimated that just for hazardous waste management; just the analytic costs for profiling your waste streams.

MR. STEIDEL: TRI doesn't require monitoring.

MR. SKERNOLIS: If he is required to report it, he



will make them.

MR. STEIDEL: I think it is resources that don't need to be spent. I think there is a better way of getting the information out without spending those kinds of resources.

That is why I think we seem to have -- we are going to try to restate something here in a minute, but I think we have something that is maybe a little more workable than we have ever had in the past.

MR. ECK: In answer to Ed's comment, briefly, just one part of it anyway, I think that the EPCRA combines both community right to know, the TRI specifically, and also those later provisions of the pollution prevention act to track and encourage source reduction waste management.

Under the community right to know, I think there is every reason to consider POTWs, at least, as being a major source of various toxic chemical releases to various media and management. There are probably some issues there.

I think you are exactly right, in that supplier notification is going to be the big problem. I think the idea that the POTW will, itself, without negotiation with the industries, which are as important a part of the community as the POTW, impose draconian and expensive reporting rules is probably unlikely.

I think it is exactly that supplier notification that is the benefit of considering including POTWs in the TRI.

I want to underline the word considering, because I do not feel we have enough information in this committee to make a strong recommendation for that.

I would recommend considering it further. I would not recommend going ahead and doing it at this point.

MR. BROMLEY: I guess two points. I would agree with Ed. I think that a political reality is that costs and the supplier notification would be shifted over to industry. I don't think industry has the political clout to stop that, if POTWs got in.

From a legal standpoint as to the certification issue, I think if it was put to the situation that there were regulatory statements by EPA saying that you may presume or assume these tables are to be used if you are sending it to a particular site and for a particular treatment, unless you have actual knowledge to the contrary, other than what is in there now saying to the best of your knowledge, which is such a vague standard that, from a legal standpoint it is worthless, it puts a burden upon a person if you say to the best of your knowledge.

People like citizens groups who sue people on TRI come in and say, well, you should have known. You should have had constructive knowledge. That just goes way beyond anything I would be willing to certify.

If there was language that says if you had actual knowledge -- not constructive knowledge, actual knowledge -- to the contrary, that you can assume that these tables are valid for numbers that you have put down, I would be willing to advise my clients and my executives, that would be okay to sign their name to the document and use those values.

MR. STEIDEL: Could you say that one more time?

MR. BROMLEY: Statements by EPA in the regulations

that the filer can assume that the tables or numbers or whatever presumptions they are using are valid, unless you have actual knowledge to the contrary.

MS. DOA: You do that right now, the way you report in section 8. Even if you know that what you said to a POTW is pass through, you report all as treated and not as released in 8.1. People sign their name and certify.

MR. BROMLEY: They do and I don't think they are getting good, full legal analysis either. I would recommend, based on what you are saying there, that they would fill out -- what is the code you used, M99 or whatever -- every time. We don't know what happens outside the bright lines of our facility. We do not know.

From a legal standpoint, it is not so much EPA doing the enforcement that is going to be of concern. It is the citizens groups who file actions under their citizen suits.

EPA, I think, on that situation would take a reasonable stance, but that is not to say the other citizens groups --

MS. FERGUSON: What you are really saying is that you would advise relooking at that certification and perhaps rewording it to accommodate a system like we are talking over all.

MR. BROMLEY: Yes.

MS. FERGUSON: And you would deal with some of the concerns around the table.

MS. FASSINGER: I would like to propose that we further investigate alternative 4 or alternative 5 with a consideration, as Mike said.

If we wanted to look -- I would like to hear from the citizens groups about POTWs reporting. I understand the burden. I understand the technical issues. But we do have supplier notification.

We report what goes to the POTW in our TRI reports. So, we are able to provide that information right off our TRI reports.

Again, I think it would deal with how the rule is written on the supplier notification requirements, would provide additional burden either for us or for the waste treatment facility.

Again, from the community standpoint, in looking at true pollution prevention, TRI reporters are only a percentage of the total sources of pollution to our water bodies.

By having -- again, without too much additional burdens -- POTWs report what is being released, or possibly bringing that data in through a data combination would be another alternative, bring in what is already reported on our NPDES -- and that was not an alternative that was on the sheet -- it would provide better information on potential other sources of pollution in the community besides the industries that are reporting.

I have to say, for our industry, our discharges to POTWs or water are relatively small numbers at this point in time, because of the work that we have done to prevent pollution.

MR. STEIDEL: Let me first of all try -- I think we have two different thoughts here. I guess I would like to

her, we are talking about providing better information, and I have heard that provide it both in form R and in the PDR.

Now, doing it in the PDR shifts the burden to EPA. Doing it at form R keeps the burden on the reporter side. So, I guess the first question is, are either one of the two ways of reporting information unpalatable? Is one -- in other words --

MR. ECK: Are you asking for a vote?

MR. STEIDEL: No, I am just asking for comment back. Would you rather see this information in the form R or is it better handled in the PDR?

MR. ECK: Well, the burden will be on EPA, I presume, to be heavily involved in making up whatever tables of efficiencies are developed, and providing those, either through the form R guidance or in the PDR.

So, that burden would be on the EPA regardless, with the assistance of the industries and the public interest groups, the usual cabal.

What is at issue is who does the calculations and where is the information of use. To me, the information is of most interest in the aggregate in the PDR.

It seems obvious that if facilities did calculate efficiencies in the form R, EPA would probably roll that up in the PDR and publish the same tables, or we could just have EPA roll that up in the PDR in the first place, simply taking the number and applying the efficiencies, by chemical, by treatment method, that way. I don't think that is an impossible technical task.

I have yet to hear -- or perhaps I slept -- a good reason for what use that information would be to the local community around a facility.

By way of elaboration, for pollution prevention purposes, given that I have generated a waste, that is really the target of my pollution prevention, not that I am transferring that waste to a facility that is more or less efficient, and not how I am managing that waste.

I mean, I don't think that we want to focus our efforts on waste management in the most efficient way; rather, I think we want to focus on source reduction. The target there is waste generation, not the efficiency of management.

So, for informational purposes, I think a larger analysis by EPA in the PDR or some addition to the PDR -- and the PDR at this point could be 15 different documents over 20 years -- is of more use than the form R.

MR. STEIDEL: Let me jump in real quick. Number one; why? Because the information assumes 100 percent treatment.

So, the community is being told that 100 percent of what is being transferred is treated. That is wrong. That is incorrect. That data is not correct. So, that is the why.

Now, as to pollution prevention, what Ed provides and what I provide is a service. I don't go out -- he markets for customers. I don't market for customers.

People transfer the waste they want discharged to me and what they want to get in to treat. We don't make that decision. The reporter and generator makes that decision; how much pollution they want to cut back themselves; how much pol-

lution prevention they want to cut back.

The whole idea of this is to provide the information as to what comes into a waste treatment unit and what is actually being released to the environment, so that the whole idea is to provide accurate information.

The idea of pollution prevention has to start with the source.

MR. ECK: There is a lot in there to respond to, and I will not try to respond to it all. You have not convinced me that there is useful information in the facility estimating the treatment efficiency itself.

There is certainly useful information in EPA estimating treatment efficiency overall. There is certainly a good reason to change the heading of 8.7, so that we don't mislead the public into thinking that everything transferred off site is 100 percent efficiently treated.

I do not see a gain to the community around the facility from knowing what the facility thinks the efficiency of the treatment plant at the other end of the pipe is for that particular community. I don't see the gain.

Again, pollution prevention is based on waste generation, not so much on treatment efficiency.

MR. STEIDEL: Okay, we agree we don't agree.

MR. CHAMBERLAIN: I guess I disagree with Mike in terms of I think the community wants to know what is going on at the POTW and what treatment efficiencies are happening over there and what is the net release to the environment.

I do think we need to change the category under 8.7 to more accurately reflect that it is being transferred off site for treatment and that the public does have a misconception that it is 100 percent treated. So, that is not accurate.

I think that your basic question, Bob, is really if you are going to handle it in the PDR versus on the form, I think we have to take a step back and look at the legal issues in terms of certification and, at the same time, see what tables can be provided from the EPA, if we want to have the facilities check off as to what the treatment efficiencies might be.

MR. COMAI: The point I wanted to make is that if communities are going to be involved in what goes on at facilities, that having the information about the treatment efficiency of the off site locations is going to be important.

If you know the facility is sending material off site to treatment in a way that is not particularly efficient, you may want to be involved in getting them to do something differently.

If it is rolled up in the national level in the PDR, you are going to miss that component.

MR. STEIDEL: That is the difference between the aggregate and the individual information.

MR. FEES: I just want to say that I am sort of like Michael. I can't say that I have been convinced that it should be in the form R, given all the discussion and information.

I wouldn't want to see the individual information lost. But if there is a choice before me, I would say in the

PDR.

MR. ORUM: On the question of aggregate information versus local, we can't presume to know all the uses of this data.

I think clearly it is important, if this is the TRI, to have both, to have it aggregatable and disaggregatable down to the local facilities. We need both.

Tom mentioned one very important, in the promotion of pollution prevention, for something that passes through 100 percent untreated, that would be very helpful to know.

I think information on the treatment efficiency is helpful. The big picture for me, again, is what is coming out of those POTWs, including from all the other sources. I think that -- that is the big picture.

I don't think there is any way that the public data release we can presume would be able to handle making this information well known without the information coming up from those involved in the industry, whether it is the generators or the POTWs.

I mean, I am just not sure how you would get there without the information base we have now.

MS. FERGUSON: As I go back to the requirements of the law under the toxic chemical -- the EPCRA items as well as the PPA -- I don't see a distinction between on site and off site.

What I do see is that the uniform toxic chemical release form shall include -- and under C it says, for each waste stream, the waste treatment or disposal method employed and an estimate of the treatment efficiencies.

MR. REIBSTEIN: I would like to register for both. One of the things that concerns me about POTWs is that we depend a lot on dilution, and some don't do as much analysis as others. Some have very poor staffing.

I think this will help someone in the community evaluate the environmental performances of the businesses in there, which will be good for responsible businesses.

MR. CHAMBERLAIN: I have one comment. In the final analysis, let's go back to what the law requires.

MR. STEIDEL: I think that is where we wound it up in a roundabout way. Let me propose, from what I have heard, just something for us to consider.

I think what I have heard is the ability to perhaps subdivide the information so that it is available, whether you want to bring it over to 8.7 or not.

Then use standard look-up tables, either use them or not use them, is what I have heard. You may either make a choice to use them. If you have actual data, you may use them.

The instructions have in them very clearly that you can use ranges of estimates. It is an iterative step of making better information and it meets the law. Comments?

MR. FEES: Any suggestions as to where do we go from here?

MR. STEIDEL: Again, I think we can probably melt four and five together as far as subdividing the information out, develop standard tables for treatment efficiencies, using the codes we already have, and provide the ability for the

data to be used from the PDR from individual facilities and be able to aggregate that information.

It is by far a camel, put together by a committee. That is what we are.

FACILITATOR: Do you want to leave that as the proposal and then have comments like we did this morning about people who differ from that? The EPA people, we have got about three minutes left for this one allotted, based on time for the other things. So, would that be the most helpful to you?

So, just like we did this morning, people who have a problem with that or something that they want to have written as a difference, what do you want to put?

MR. SKERNOLIS: I just wanted to ask Bob if he doesn't want to add to the proposal the notion that we evaluate the liability/certification issues by generating -- if that is going to solve the problem.

I actually haven't heard too much else from the generators beyond that as a level of concern.

I mean, I acknowledge that it is a legitimate issue and needs to be raised and resolved.

FACILITATOR: So, that is part of the problem?

MR. SKERNOLIS: Yes, evaluate and see if we have a manageable solution for the viability certification.

FACILITATOR: Is there anybody who wants to put anything up here, any problems with it?

MR. BROMLEY: May I add something to it? I guess I pretty much follow what was presented by Bob, but I would, on the macro level, say that the PDR, as a comment needs to be using this data on an aggregate level, and putting it together with what I have seen as a statement saying that the numbers on TRI have gone down but the waste generated has gone up.

This gives the information that is saying maybe the waste generated is going up, but it is also getting destroyed or whatever in other places, but this gives you that information and ties those together.

FACILITATOR: Okay, another minute. Other comments?

MS. FERGUSON: The other thing I would add to the proposal is, to the extent that we are using look-up tables or other items, let's keep in front of us burden reduction.

Maybe there is some way to do some electronic things to hook things together so that there is some automatic re-reporting that occurs.

MR. STEIDEL: What I will try to do is encapsulate this on one page so that everyone can see it.

FACILITATOR: We have one more comment, another 30 seconds.

MR. LATIMER: I guess follow up to burden reduction, maybe for POTWs, this could be a case where the form R just isn't the right answer.

One, if industry reports their estimates or some mechanism, it falsely represents the true picture, because you have other non -- household, et cetera.

Two, it could be very, very expensive for the POTWs to report in the formal format. So, in terms of burden reduction, maybe the compromise would be to look at what the clean water act is doing and see if some better dissemination of

that information on a facility level would answer a lot of the concerns in the community.

MR. STEIDEL: That goes back to the consolidated reporting we talked about.

MR. STONE: I have one quick thing we haven't discussed before. If you have look-up tables you are going to have metals that show zero treatment efficiency. People are going to want to know where those metals are going.

MR. STEIDEL: Not in every case. Some of the facilities do have --

MR. STONE: I am thinking of the POTWs. It is concentrated in the sludge and then goes for land treatment somewhere.

MR. STEIDEL: That is a process issue, a technical issue that we haven't talked about yet. There will be some partitioning.

Then as Paul has pointed out before in the past, how do you track all the outputs of the POTW. When the sludge is tracked, it is another NPDES program that is reported entirely different from what the waste water part is.

The information is there, but it is being scattered and spread out, but it is not available well. It is not available so that it can be used, and that goes back to the consolidated reporting issue that I think is very, very germane to what we are talking about.

FACILITATOR: Do you want to take two more comments? If we do, they are the last ones, because this group's time is up. Two more comments.

MR. REIBSTEIN: I think he makes a good point. I think it is possible to characterize that data.

MS. FASSINGER: In getting to the consolidated reporting issue, I guess the question of adding additional calculations to provide this treatment efficiency, and then I would ask what the potential conflicts or, again, trying to provide the best information to the community and not cause confusion, if we report using tables on the form R and then we get into data consolidation and the NPDES data is brought in, I question whether that is going to cause more confusion.

Perhaps the data consolidation is the answer to provide the better information to the community on what is going out, and eliminate that confusion.

MR. STEIDEL: I think we are looking at an iterative step to provide better information. When consolidated reporting is here, I think there is a whole section here that needs to be removed.

Then I think the information becomes clear and there will have to be a reconsideration of the process at that time.

MS. FASSINGER: Yes, and the other issue is still pollution prevention and pollution in the community. By only focusing on the form R and the TRI reporters, we are missing a very significant proportion on burden on the environment that, if we bring in NPDES reporting, we may be able to capture it.

FACILITATOR: Okay, we will have a lunch break until 1:00 o'clock. Please come back.

(Whereupon, at 12:00 noon, the meeting was recessed, to reconvene at 1:00 p.m., that same day.)

**A F T E R N O O N S E S S I O N**

(1:22 p.m.)

FACILITATOR: Group two, come on up.

**Agenda Item: ISSUE II.**

MR. LATIMER: Our group was charged with looking at the recycling issue, primarily exploring the idea as to whether number of times recycled, so items like that with doing value.

Essentially, we have got three different things we talked about. One, in terms of the actual data element, number of times recycled, our group felt it was a good idea. It would provide some value in some instances.

We were coming up with a lot of examples that we thought it would be very difficult to calculate. So, overall we just feel it is impractical, at least right now, at least from our brief determination.

However, we did have some good ideas coming out of that in terms of other items that can be suggested to help answer some of the questions that this data element hopefully would have given.

One of the concerns seemed to be, if you recycle a million pounds of material, it seemed to overestimate the amount of material you actually have on your site at any one time.

It makes it look like maybe you have a million pounds in storage, or at least that is your amount that you can find at the plant site.

In actuality, you may not have more than five or ten thousand pounds. It is just that it is recycled ten times a day, for instance.

Essentially what we felt would help answer those is currently in the form R there is a maximum on site range code.

One idea could be to use that to help answer the question, and especially at the higher range levels, maybe tighten those a little bit.

For example, I think code 6 may be off by a factor of ten, but it is like 10 million to 50 million. Now, that doesn't really give you a whole lot of information in terms of the actual amount there. All you know is that it is a big number.

We feel that by looking at those ranges, maybe there is some opportunity there.

Another one could be looking at if there is a way of estimating some type of capacity for the recycle system. That was another idea that we explored.

For example, if you recycle 100,000 pounds of material 10 times during the year, for a grand total of a million, maybe you have a capacity of recycle system or something like that, and report the 100,000 in that manner.

One of the other concerns in our discussions was that the recycle number -- and we know it is off limits in terms of being defined as a waste -- but one of the concerns is that when you lump 8.1 through 8.7 on the current form together to give a total waste managed number, it doesn't give a whole lot of credit for movement up the hierarchy.

So, in other words, your total waste may be the same from year to year, even though you may be recycling a lot more in later years than you were in previous years.

In those previous years you might have been treating



it or just releasing it to the air, for example.

We feel there is some opportunity also in the public data release analysis to see if there is some way of measuring the movement up the hierarchy.

In other words, for a facility -- just using a single facility example -- one big caveat is that they have a fairly stable product stream from year to year.

Let's say you measure the percent of recycling as a percent of the total waste. Theoretically, if you move up the hierarchy, you might be recycling from year to year and that percentage should be increased. So, that can be used in conjunction with the total waste number.

It might help explain that even though maybe a facility's total waste number is increasing, at least they are moving up the hierarchy.

Theoretically they are moving up the hierarchy, doing a better job of pollution prevention than they were in the past.

So, that would give credit for facilities for, in this example, doing additional recycle, whereas in the past, with just the lumped up grand total number, it is hard to analyze what the benefits were. It would help bring some benefits for moving up the hierarchy. So, let's open it up.

MR. REIBSTEIN: Would you still have what I call the inflation of the numbers, that if you are recycling you are going to have higher numbers? Do we still have that; you are just sort of correcting for that, providing the ability to adjust it?

MR. LATIMER: In relation to what, the PDR analysis, you mean?

MR. REIBSTEIN: The number of times is a good idea. It seems to me that the group is reconciling itself to this inflation. They are just going to use the number of times so that you can sort that problem out.

MR. ORUM: There is no inflation of the number as we discussed it. Every time something goes around for recycling, every time you count it, if you are not recycling it but still producing it, it would have to be reported somewhere else on the hierarchy, whether to treatment, disposal, energy recovery or someplace else.

When we looked at that, there is no inflation per se, because that is material that would have gone downstream on the hierarchy.

MR. REIBSTEIN: Let me see if I can explain the inflation. If I need a thousand pounds of chemical X -- if I have a thousand pounds of chemical X, and after I am done using it I have 10 pounds of waste.

Now I start recycling it. I am sorry -- I recycle a thousand pounds and I have 10 pounds of waste. So, I am using 980 recycled instead of buying 980 recycled.

The TRI would not require me, because I am not tracking use, to log buying an additional 980 if I don't recycle.

I am not clear why I would then count it again, because I am using it again. I should just count, it seems to me, the waste that results from the use, not necessarily each time I use it, as if each use has to be counted again. TRI is

tracking waste.

MR. ORUM: That is probably where we need to ask EPA to step in and reiterate what they have said before. I was only making the point that if you are not counting it as recycling, going around and around and around, but you are still producing it, now where it is going? Is it going to treatment, disposal, energy recovery?

It is not inflated in that sense, in that it would go further down the hierarchy somewhere, and would be reported. It is reportable.

What we carefully avoided was the subgroup getting into what could be reportable and what should not be reportable.

MR. REIBSTEIN: I think you are absolutely right. This is a question for EPA to decide. What TRI is supposed to cover is, you bring a chemical on site and you are supposed to calculate if you break the threshold, and then what happens to it.

If you are recycling it on site, it seems to me that you already brought it on site, and you don't need to consider it again as a chemical from which you start and analyze from the beginning, as if you just brought it on site.

It seems to me that once you have brought it on site, what you need to do is talk about the fate of it, the waste. It doesn't seem to me to be material, unless we are counting use, how many times you recycle it. I think it pertains to use.

That seems to me to be an inflation because you are counting the waste each time, but it is the same waste.

The example is our material which has the 1,000 pounds that becomes the 980 pounds. That is what I refer to as inflation.

I think that if you are tracking use, that is appropriate, because you are using it again and you are looking at uses. But we are tracking fate, and it does not seem to me to be accurate. That is why I call it inflation.

MS. DOA: I am confused. Could I ask a question because I am confused by all of this, and I apologize for interrupting.

Every time you use it, it becomes spent and you can't use it again unless you recycle it. So, you have generated waste that needs to be further managed.

Even if it is the same molecule, you are generating waste, and if you are counting the waste that has to be managed, you are counting it each time it is generated.

I mean, this is -- are you looking at it separately? I can't tell.

MR. REIBSTEIN: I am not calling it spent if it is reusable and recoverable. Spent is when you are done using it.

MS. FASSINGER: I think it is a matter of semantics, between the waste generated, which is the 1,000 pounds, and the waste managed, which is the 980 pounds.

The issue is whether we should only count the waste generated with our other waste generated that are direct releases, versus waste managed, which is a much more inflated number.

So, we are trying to clarify between those two, and also the fact that we are not demonstrating, the way it is reported now, any benefit from the recycling activity.

You do have resource conservation there, which TRI, the way the numbers are reported, is not addressing.

That is why we suggested better conveying the waste management hierarchy in the PDR.

MS. FERGUSON: Why do we have to include the volume or amount? I guess the statute uses the term amount recycled in waste -- I don't find the term waste managed as a requirement in the law. That is something that has been created. I do find the amount recycled.

MS. DOA: I don't have the PPA. It is the quantity --

MR. FEES: Entering the waste stream or released prior to recycling something and treatment.

MR. ECK: Should I read it?

MS. FERGUSON: Yes, that would be useful.

MR. ORUM: Items included in the report, the quantity of the chemical entering any waste stream -- parenthesis -- or otherwise released in the environment -- parenthesis -- prior to recycling, treatment or disposal, during the calendar year for which the report is following percentage change from the previous year.

MR. ECK: I think that is what you are getting at, yes.

MS. DOA: So, it enters it and then you recover it, then you have created a waste and you need to manage that waste. I think that is what the --

MR. ECK: Back up, back up, back up, back up. It is not my turn, so I don't want to jump in but I want to jump on you at some time about that. Can I reserve a chance to jump on Marie?

MS. DOA: Do you want to finish your thoughts, and then we will come back to this.

MR. ECK: Okay, I am not that familiar with the pollution prevention act or discussions leading up to it, but the guidance, I guess, that has been requested from you all on exactly when something is entering a waste stream, and does that recycling constitute -- well, on site and off site seems to be the question here.

Let me add to that, sort of what Paul said, is EPA willing to consider changing the way on site recycling is currently reported? If not, why discuss it.

MS. DOA: There is a rule making that is coming up that is dealing with all of section 8. Section 8, because of the lack of definitions in section 8, there will be comments requested on all of that.

That includes recycling. So, section 8, 8.1 through 8.7, is the production related waste, or toxic chemicals in production related waste, and that does include recycling, to answer one thing that you said.

On the other, certainly because recycling will be up for comment, that is something we will certainly entertain.

MR. ECK: As part of that rule making.

MS. FERGUSON: I never got my question on the table.

MS. DOA: I think some of this will definitely be

useful for that rule making.

MS. FERGUSON: What I was trying to point out, yes, there is an amount required prior to recycling and disposal. But there is a 2, that says the amount of the chemical from the facility that is recycled is a separate item. I don't see a requirement in the law to add one and two under the pollution prevention act over with little 4 under the toxic chemical release.

I mean, you have got several different categories of volumes required. One of the difficulties I see is spinning them all up together. I don't see a requirement to necessarily spin all of them up together.

MS. DOA: Maybe I can answer that with history. One of the things, as you said, was what Paul read, because I don't want to misquote that. It is basically the total waste.

That number is not on the form separately. Because of a political compromise that was made, the equivalent of that number is the sum of 8.1 through 8.7, and that is where your recycling is.

That is why the recycling -- the recycling that is there now is part of that total waste. As I said, there is rule making that hopefully will occur later this year to finally address the section 8 stuff.

MS. FERGUSON: Your interpretation of the law, then, is the statement that says the quantity of the chemical entering any waste stream or otherwise released to the environment prior to recycling needs to include the amount recycled, even though that is a separate provision under the law.

MS. DOA: I guess what I am saying, because there are no regulations on that, what I am saying is that when the form was developed, to address the requirement in the PPA, that I am going to call a total production related waste without quoting the whole thing, instead of that number, the compromise was made to have the components of that number collected.

It is not my -- that is a decision that was made, and this has nothing to do right now with my legal interpretation. I just want to give everybody sort of a history on this.

But the issue on recycling, as I told Michael, I think will certainly be useful in the rule making that will be coming out, trying to implement the regulations.

MR. SPRINKER: I guess in some ways, if I remember things right, it seems like one of the reasons we may want to know, we may want to be counting the quantity going off site for recycling is that maybe we need to look at on site use and off site use perhaps separately, is I think this is one of the few measures of how much in the way of TRI chemicals are actually, I guess, in transit or whatever throughout the country.

I am not sure if that is really tracked anywhere else at all. If I send 10,000 pounds out to company XYZ for recycling and I get 9,000 of my equivalent pounds back, you know, that is 19,000 pounds out there on the road or on the rails.

I think that is useful information to have, how much is going out of a plant and back into the plant. Now you could possibly make the argument that you are recycling on

site.

There may be different types of recycling on site. You may be sending it to a very large plant, from building A a quarter mile over to building B through piping or whatever, probably through piping, to be reprocessed there.

You may have, in some ways, two separate processes, each of which may have their own inherent hazards, their own inherent storage. Or you might look at that as one particular source.

You may also have a thing where you are able to keep using solvent and solvent and solvent over and over again and just adding in new because you are not degrading the stuff significantly with use.

MR. ECK: On a separate issue, the reason I raised my hand in the first place and then we got side tracked, back to recommendation number two here.

Just a question. You talk about perhaps tightening the ranges for quantity on site and making that a part of the data.

I guess the original recommendation to have a ratio of number of -- or some account of number of times recycled seems to be difficult to implement for continuous recycling processes the pharmaceutical industry has used, for example, that is beyond my expertise.

Did you consider a ratio of that quantity on site and that on site recycling, in some fashion, to somehow indicate amount in transit versus actual amount of material posing an immediate threat of release to the community?

MR. LATIMER: I think that is what we were trying to get at.

MR. ECK: Is that what you were trying to get at and I just didn't understand it?

MR. LATIMER: The point of the number of times recycled being impractical is that it falls apart when you talk about continuous on site processes. There is no way to absolutely say this particular molecule went around 100 times or a million times.

So, part of the way we tried to get at is what is the capacity of the process, then, and somehow differentiate between the on site material that you have in inventory, or feed stock if you will, and the on site material that you have contained in the process at any one time. We know that there are a ton of problems with this.

MR. ECK: Were you considering using the actual measurement of on site inventory, maximum measurement of on site inventory, or just the range codes as reported on the TRI form.

MR. LATIMER: I think that is what we were trying to drive at with tightening up the ranges a little bit, between 1,000 and 10,000 or 10,000 and 100,000. That is a big range there and it doesn't really accurately depict anything.

MR. ECK: Okay, last question. What problems did you see with using an actual count of maximum inventory on hand during the calendar year. Is that difficult to track?

MR. LATIMER: I think it depends on how accurate you want to be. The range does essentially the same thing. I mean, if you come within 10 percent on the range, then that

gives you just as good reporting and actual number.

I think somebody pointed out that there were confidential business issues that were brought up previously that we didn't really go into.

MR. ECK: We posed a question whether CBI was the reason for EPA going to ranges in the first place, or whether it was a burden of reporting issue.

The general consensus that I heard in the subgroup was, it was a burden of reporting issue. None of us in the public interest community had advocated real numbers other than whatever is just needed to give you a better sense, the whole idea being to just have something comparative to that number of times around recycling that would give you a way to give a better sense of what was going on at the facility.

MR. ORUM: I wanted to follow up on what Susi had raised about the pollution prevention act. I have argued that we stay out of what is reportable and what is not, what is integral, what is not.

I just wanted to point out that in addition to, though, the amount of chemical that is being recycled being listed as a separate item, you also have the amount of chemical at the facility which is treated as a separate item.

I don't know how you would report this number one, the big item, prior to recycling treatment disposal, without including all those numbers, recycling, treatment and disposal. I don't know how you would do it.

MR. COMAI: I had a point that went back to Mike Sprinker's earlier point that I think might relate somehow to the pharmaceutical industry, but I am not sure.

For a small shop that has, say, a solvent still where they are recycling stuff constantly, in the worst industrial hygiene, and the worst worker exposure I have ever seen is in a plant where they do have an unlimited supply, where it can be recycled.

So, the number of times that they recycle that stuff, the amount of stuff that is going through that solvent still doesn't really reflect how efficient the company is.

They might be recycling a lot but, in fact, if they reduced their use and limited their recycling, the workers would be better off, there would be fewer effusion emissions coming out of the plant into the community.

The idea of capturing that number doesn't seem to be inflation to me. It does seem to relate for some processes and for some recycling processes on site, that relates to efficiency and not necessarily just to -- it is not inflation.

MR. CHAMBERLAIN: I am going to get back to what Susi and Maria and Paul are kind of discussing. In direct answer to all of that, I think PPA says to count the amounts entering into a waste stream.

It also has these separately listed items, the recycled, the treated, et cetera. I think the problem that we are struggling with and the issue we were trying to address is created by EPA's compromise.

They have said, okay, we will list all these separate items which the PPA says you should have, but then equated the addition or the summation of those items as the amount entering the waste stream, which is not correct.

Those are not synonymous. What is entering the waste stream and what is being recycled as a number -- say it all enters into recycling -- your recycling number is going to be much larger than what necessarily enters into the waste stream, because if it goes into several loops, what enters the waste stream is going to be the small number and what is recycled is not necessarily reflected there.

That is what we were trying to address, I think, is that we have an inflated number because of the number of times it is going around in the loop.

MR. BROMLEY: Can I read again what the law says? Section 607.1. The quantity of the chemical entering any waste stream -- parenthetical, or otherwise released to the environment -- prior to recycling, treatment or disposal.

MR. LATIMER: So, if you have an amount that enters into a waste stream and goes through recycle --

MR. ORUM: It defines waste stream more or less as prior to recycling, treatment or disposal. I think that is correct and we need to remember that we have got 100 superfund sights related to --

MR. BROMLEY: I don't think it is defining it that way.

MR. ORUM: The idea is, we have to 100 superfund sites related to hazardous waste recycling, maybe more, in some way.

You don't want that activity to increase worker exposure or other things. To me, it is a plain reading. It is a chemical entering any waste stream prior to recycling.

We spent the last iteration of this committee -- Joan was present -- we spend countless time and produced a big report on areas where we agreed and disagreed.

We never came to consensus on that very issue. What I think we should do is not try to reopen what is reportable and what is not reportable, but deal with this question of, once it is reportable and it is going around and around and around, that is a big number.

It is bigger than might be suggested. It suggests a bigger hazard than might actually be present from the actual amount that is on site at any one point in time, and try to resolve that issue, which was the topic of subgroup II.

MR. CHAMBERLAIN: I think the actual amount present on site at one time is what is important. I think the number of times it is recycled is not important. It doesn't provide value to the process.

On the capacity issue, in terms of the amount of chemical that is in the process, I think we ought to report that annually under 312 for each chemical, each TRI chemical.

MR. REIBSTEIN: I just wanted to talk about what Andy was talking about, and Paul has also raised the question of recycling operations being dangerous.

I agree. I think that recycling is far less preferable than source reduction in addition. However, I don't think that counting the waste each time it comes off -- counting materials each time they go through the recycling process is the appropriate way to capture the risks.

If you are worried about evaporation, fugitive emissions, you need to be counting that, and that is counted.

It doesn't seem to me that the recycling of the material itself addresses the risk. There is dangerous recycling and there is safe recycling. I think that point is important on both sides.

So, I am concerned that the way we have it now devalues recycling excessively. It even makes it look worse than not recycling. Continuing to buy raw product, that is my concern.

MR. SMITH: I would agree with Andy on the recycling issue, because one of the things we keep hearing are RCRA terminology like spent material, by product.

These types of things determine when a waste is regulated under RCRA, and that is not what this law is about.

The big issue is generation and if you have the same production ratio and you keep generating more waste, whether or not it is recycled, this indicates that you are inefficient.

Recycling doesn't improve the efficiency of the process itself, doesn't reduce worker exposure, doesn't change production at all, doesn't change the type of materials used.

Recycling, as pointed out by the Office of Technology Assessment in 1986 and many other people, just sort of reinforces current production systems and the way people produce products, and that is not what we want.

If this thing devalues recycling, I think that is good because the policy of the nation is prevention, is source reduction.

We should push that as much as possible. Recycling has resulted in I don't know how many hundreds of damage cases around the country, even on site.

The more you have to handle things, the worse it is going to get. So, I just agree with Andy, and we should forget about RCRA and RCRA terminology in terms of when something is regulated. That is not the issue. The issue is waste generation.

MS. FASSINGER: Here is another one for you, Charlie. I agree with Andy's point. That is a really good example of where the large number does have some significance, and thank you for bringing that up.

As far as the 312, that is on there, but unfortunately we have not been able to mix 312 data and 313 data yet.

Maybe to address a point that Mike brought up about what is in the community and something Paul brought up about the superfund sites, a suggestion -- maybe we need to put another option up there -- is to maybe do a ratio of the amount you send off for recycling over the amount you bring back as recycled materials or as useful materials.

If I am sending 100,000 pounds off for recycling but I am bringing 80,000 pounds of that back, the 20,000 that escapes would address Mike's issue or your issue with the superfund sites. Then I still am bringing something back.

Just to again address the superfund issue, you can't create mass; you can't create matter. That huge number, the amount that is generated basically like 1,000 pounds, put it through the system 10 times, you are not going to end up with 10,000 pounds.

If you had the contamination, you would have 1,000



pounds as a contamination. So, by using the big numbers, it indicates that you are creating matter, which you aren't.

It is a finite number of molecules that are there that, you know, we would have to deal with. So, just a couple of thoughts.

I guess I would ask about maybe this other option, and see if we had any input besides number three, for amount on site at a certain point in time, maybe looking at this other option of amount sent off for recycling over the amount that is brought back, or reused.

MR. LATIMER: So, on site recycling efficiency?

MS. FASSINGER: Right. Well, actually as a facility, it would be the amount I send off site over the amount of recycled material that I bring back.

MR. LATIMER: Say that again?

MS. FASSINGER: The amount I send off site for recycling over the amount that I bring back, like a ratio. So, if I send 100,000 pounds off site and they recover 80 percent of that, then I could indicate that I have brought 80,000 pounds back, which addresses the fact that I am not bringing new material into the system, that it is coming from somewhere else.

There is probably that somewhere else in the reporting system and it is kind of the amount in process actually, in that time period.

MR. ORUM: Would you add a data element, then, beyond off site recycling? You would have another little box that says, and the amount that came back?

MS. FASSINGER: Right, as possibly in lieu of the quantity on site, or possibly even in addition, because I know they mean different things.

MR. ECK: My thanks to Joan for bringing us back to the overhead, which was beginning to be irrelevant. I have a question about number three up there.

Some of the terms, what precisely is meant by measure movement, and how would you measure movement on the hierarchy, and what is meant by credit? What exactly are you getting at in the PDR analysis there?

MR. LATIMER: I can provide a very quick example of what we mean by that. Just look at a single facility, and you might even be able to do this across an industry if you are really daring.

This also assumes you have a fairly stable product mix from year to year. This does have some caveats, but it does offer some potential over long ranges of time, to see how a facility or industry is doing in terms of moving up the hierarchy.

Year one, you recycle 100 pounds and that is 300 percent of your total waste generated if you are defining that as in section 8.A.137(?).

Treatment is 50 percent and emissions are 20 percent. Year two, you are able to recycle an additional 100 pounds that otherwise would have had an air emission, for instance.

So, in year two your recycling, instead of being 30 percent, is now 40 percent of your total, and your emissions are now 10 percent.

Now, your total waste generated from year one to

year two is the same. In terms of total waste, source reduction, you haven't done anything. However, in terms of moving up the hierarchy, it is conceptually better to recycle than to have direct air emission.

That is what I mean by some type of analysis where you can show some type of movement up the hierarchy; in this case, transferring 10 percent for emissions to recycle.

MR. BROMLEY: I guess I would kind of expand upon that. I agree with Andy and what he is saying that this information is useful, and others have said so.

I don't think anybody here is denying that this information can be used and what you are saying is that the recycling operations have attendant risks, just like any manufacturing operation has attendant risk.

That is fine. The flip side is what we are trying to address. Where I agree with Michael is that it is devaluing the recycling.

As he has just pointed up here, it is not pointing out the advantage, even though they haven't done source reduction. They have done an advantage by recycling it.

It is the policy of the nation not just to have source reduction, but to go up the hierarchy of pollution prevention.

It is much better to say, also, from the front end, I am going to have a manufacturing operation that is doing 100,000 pounds a year. I can do it with all virgin stock or I can do it with half recycle and half virgin.

Which is better? The half virgin, half recycle, I would think, under the pollution prevention hierarchy, I would think, is much better.

That ought to be reflected in addition to it also reflecting your concerns of saying that there are attendant risks with recycling, but there are also attendant benefits with recycling.

That is what we are trying to address, and making sure that comes out. Right now in the present form it seems to be devalued and saying that all this recycling, yes, it creates all these superfund sites and all these things.

That is the down side. There are also up sides to it and we want to somehow come up with something that shows the up sides, in addition.

MS. FERGUSON: I am just trying to understand. I am going to draw a diagram. Tell me where I am wrong, because to me we are adding up apples and oranges, but I have to draw it out to see.

You can find different parts of these in the statute at different points. You have got a requirement to establish the range of toxic chemical on site at any point in time.

That feeds into your process and, out of your process, you get an amount in your waste stream.

What is in your waste stream on a one-time basis, should add up to what you are recycling, what you are treating, disposing, and what is going off into the environment.

Your total recycle and your total feed stock should add up to what, through time, is managed as your stock on site.

It seems to me that, by counting the number of times

recycling and trying to compare that to the amount in the waste stream, that is where it doesn't necessarily hook up.

MR. ORUM: I don't think the amount of recycling adds up to treated, disposal or off site. Is that what you meant?

MS. FERGUSON: No. You have got an amount in your waste stream. What is in your waste you are either going to treat, dispose, release to the environment or recycle.

That amount in your waste stream value that is in this statute, that is item one you are talking about in the pollution prevention act doesn't necessarily add up to the range of toxic chemical on site.

MR. ORUM: Exactly.

MS. FERGUSON: That is a function of your raw material and your total recycled through that period of time.

MR. ORUM: That is why we became interested. When we decided it was a little impractical to say the number of times around in all the different industries -- that is when we became interested in perhaps using it, although it would need more exploration -- this idea of the total amount on site, whether as a range or a real number in some flexible estimate -- as a counter balance to the information that you get on the apparent suggestion that you created matter by having it go around so many times.

MS. FERGUSON: And I think where we are getting into the cyclic dialogue is in our plants we are matching apples and oranges in terms of volumes present. We are trying to substitute something.

MR. ORUM: Yes, those are supposed to be different. Keep in mind that every time something goes off to recycle, off to the left there, if it was not going to recycle with no change in the process, it would be going off to the right. So, in that sense, there is no inflation.

MS. FERGUSON: Yes, but also in terms of your issue, Andy, if you didn't recycle, if you kept the production the same way, all you would be doing is using more raw material or the same material.

As long as the process is the same, the relative risks of what you are dealing with, the chemical is the chemical and is present.

MR. FEES: It would be different if the recycling operation was its own operation.

MS. FERGUSON: Yes, you may have point of exposure associated with that and you may not with the other; yes, that is true, too.

MR. SKERNOLIS: May I ask a question? Would we be able to identify the raw materials used under this example just from back calculating?

If that is all you are going to get, why don't you just have a data element saying raw materials used, avoided by recycling. Then you are out of it. We don't have to worry about anything else.

It seems to me that is what we are all trying to get to, the same point, is how much material aren't we using because we are recycling.

MS. FERGUSON: One time plus any place else that it can go in the environment is really your total in the waste

stream.

It isn't necessarily the amount you recycle totally added into that. I think you have got to look at your process on a pass through basis.

MR. REIBSTEIN: Just a quick example of the problem that I see, and maybe I have just misunderstood the way this whole thing works.

To me it seems that it would make on-site recycling look worse than off-site recycling. You buy 1,000 pounds and you have got 900 recoverable and 100 waste.

So, you recycle the 900 that is recoverable on site, and you have 800 pounds recoverable and 100 waste. Over here you total up the waste. You have 300 pounds. That is the way I think it should be done. That is the spent material.

This recoverable material, however, we are still counting each time it comes off. So, we have 2,400 plus the 300. We have got 2,700 pounds that we seem to have generated on site as waste.

Now, if you did this off site, if you buy 1,000 pounds each time, you would have 100 pounds of waste spent on site to manage. You would only have 300 pounds on site.

Then you get to say that you are recycling 2,700. It just doesn't seem to be right.

MR. SKERNOLIS: I don't follow the bottom of your chart.

MR. REIBSTEIN: You are sending this off site. So, yes, it is a transfer off site for off site recycling. You can say, I am a good company because I am recycling this off site.

MR. SKERNOLIS: But you are reporting the full 1,000 pounds that is transferred off site for recycling.

MR. ORUM: How do you get waste if you send it off site for recycling.

MR. REIBSTEIN: What you are pointing out is that you would add these two to get your total waste figures. So, you have 2,700.

MR. ORUM: You are just pointing out that off site transfers are a little less exact in how they are reported. That is true, because companies are not supposed to be able to really know for certain what happens off site.

MR. REIBSTEIN: However, here you have had to buy raw materials three times and here you have reused that same material each time.

MS. DOA: That was a big issue.

MR. REIBSTEIN: This is the spent waste you generated here. This material here is equivalent to this material here, and we are not reporting it.

MS. DOA: At the top, the 900, can you directly reuse it or do you have to go through recycling? Is it that you can't use it until you clean it up?

MR. REIBSTEIN: Maybe. It may be one situation or the other and the law says what type of recycling you use. We could add that you have to describe what sort of processing it has to go through.

MR. ORUM: What you are saying is that the piece of information that is lost is not the pre-waste issue, but the 2,400 is the information that gets lost.

MS. FASSINGER: What I am getting to is whether the 900 at the top, that is material -- let's say that is spent solvent and you need to distill it, let's say. You need to clean it up before you can reuse it. You need to recycle it. If it is waste, if you can't use it, then it goes into the waste quantity.

MR. ORUM: But if you can directly reuse it, it doesn't get reported.

MS. FASSINGER: Because you are not managing it as waste, let's say. You can just directly reuse it without re-covering it. That is what I was trying to get what you meant --

MR. REIBSTEIN: You don't count it?

MS. FASSINGER: If you can directly reuse it without managing it as waste, if it is just directly reused.

I guess I didn't understand. I was asking what the 900 was.

MR. REIBSTEIN: It seems to me you have the issue of some risk because you are doing some processing.

MS. FASSINGER: I am being really parochial. I am just saying what is in a PPA, you know, when they talk about quantity entering waste before -- let me see; I want to quote it: the quantity of the chemical entering any waste stream or otherwise released into the environment prior to recycling, treatment or disposal. That is the 900.

MR. SMITH: That is captured here. The question is, do you have to keep capturing it each time.

MR. REIBSTEIN: That is how we interpret it. You do. I am wondering what is the point of that. If the point of that is because we are worried about the risks of recycling, or that recycling isn't good for superfund, I agree with that idea, but I don't think this is the way to do it.

This gives us this inflated number that really is more relevant to this. This is really the waste generation that is occurring. I don't think this is the way to do it.

MR. CHAMBERLAIN: Would you call it your incentive for source reduction?

MR. REIBSTEIN: No, because you know, you have to look at each situation. My business is source reduction and I go in and I try to get people to do source reduction.

We have got a lot of people to do it, but you know, they can't always do it. When they can't do it, a lot of them do recycling. When they do it, I want to pat them on the back.

I want to make on site recycling, because there is less risk from transportation, look better than off site recycling, look a lot better, and I want to make it look a lot better than buying new raw material.

MS. FASSINGER: The issue there is, by recycling, you are only dealing with the original 1,000 pounds rather than 3,000 pounds of new material.

MR. SMITH: If the solvent recovery facility off site, if their business is to take and recover as much as possible, that material is being recovered for you somewhere, if not at the original facility.

In that sense, there is no difference in the numbers you have presented, other than the transportation.

MR. REIBSTEIN: Correct.

MR. FASSINGER: I think this is kind of a follow up on Rick's proposal, and then it was suggested I just flip the numbers on this ratio again, to maybe address the point Rick brought up about recycling material again and having a beneficial application of it, in trying to put your amount generated in that context, so that you can get not only the amount of material or waste generated, even if it is going for recycling versus kind of the benefits of doing it in resource conservation.

So, if you sent out 10,000 pounds and that is the inflated number, you might send out 1,000 pounds 10 times, but you keep bringing it back in, so then you are bringing in 8,000 pounds, then you would have kind of a recycling efficiency metric of .8.

You know, if you recycle 100 percent you would have a high number. If your recycling efficiencies are very good, you would have a lot number.

So, you would get to Mike's issue about what might be escaping in between in transportation and whatever, and the superfund issue, while still conveying the benefits. You still get to Andy's issue about how much you have to deal with in the system. I would like to just put that up as one option.

MR. SMITH: I just want to point out one thing, it is a statute; it is not a pollution prevention hierarchy. If you read the Congressional record, it is a waste management hierarchy with prevention at the top.

Also, EPA defines pollution prevention as source reduction.

Secondly, if you do it the way Rick does, it looks like you are putting recycling on the same par as source reduction, for the public's sake. It looks like it is just as good, and it is not.

MR. REIBSTEIN: Only because we don't have use information and I am working on that. You can help.

MR. CHAMBERLAIN: Joan, how would you address materials that are sent off site for recycling, like catalyst, and the catalyst metals are recovered but are not actually maybe brought back to your plant, but are then sold to someone else or they go into a central reuse category.

You would not actually be bringing it back into the process. So, it would be zero over 1,000.

MS. FASSINGER: We have a situation where it is not totally in agreement. It is not closed loop. An example is lead from a battery plant and we send off -- actually, this 80 percent efficiency is pretty close to what we are doing.

We know that of the material we are buying, which is actually raw material, that particular facility has an 80 percent -- we get 80 percent of the metal we get is from recycled sources.

It might not be the exact same molecule or be my particular metal that is radio isotoped, but I still get a credit for that.

Then that puts this, again, a little bit more in perspective. Yes, I am sending a lot off, but I am bringing a lot back in and there is a benefit to that.

MR. SPRINKER: I understand the debate over source reduction versus recycling. I guess it all comes back to, is there a benefit to knowing what is recycled? Is there a benefit to knowing what is saved?

I think there is, even from the standpoint of then looking at, okay, company X has recycled all this stuff and is using, instead of new materials, recycled materials.

Now are there ways that can be done even better which does get to the source reduction.

As far as -- there are really a couple of examples here. One is both data collection and one is a PDR. Maybe we need to look at those somewhat separately, because I think we seem to be almost mixing apples and oranges here.

I hate that term spin, but the spin you put on things through the PDR can get at these issues of recycling, source reduction and so on.

You have got to have the data to do it, and I just feel like sometimes we are mixing the two and perhaps should be looking at the data elements we need, and then how we discuss those data elements.

MR. ECK: To John's -- essentially what you seem to have is a recycling efficiency measure which would probably always be about .7 to .9, assuming it would apply.

I think on a lot of my facilities, it would be a stretch to apply it. I guess my only comment would be it is quite different from the original EPA proposal, which was a count of recycling separate batches.

It is quite different from the later committee proposal, which is some ratio of recycling or process capacity to amount on hand, to reflect, you know, perhaps risk from actual quantities, but still incorporate some measure of the waste that is actually managed.

I am not sure that the ratio that you proposed would be a particularly useful measure for the problem we discussed.

It very well might be a useful measure in the same way that the form currently asks for waste treatment efficiencies. There is no similar request, I think, for recycling efficiencies.

I don't understand; perhaps there is a way that it would answer the question and the problem of essentially the total waste management quantities that our facilities currently report.

It may include millions and millions of pounds of on site recycling, however it is done, whereas the actual amount on hand may be much smaller.

If we are trying to accurately characterize the right to know information, while there is a right to know component to both the amount on hand, and the amount managed, I think -- and I have heard arguments compellingly for both -- it is in our interest to convey to the public the difference when there is a significant difference. I am not sure this ratio conveys that.

MS. FASSINGER: No, I think this issue has a different intent. We would still have the amount on hand, and then if we needed to narrow the ranges, we could do that, too.

We could make the emergency response type issues, and convey that information. What am I dealing with at a cer-

tain point in time here.

Because this is such an inflated number, the intent of this was to try to put this in context with some of the benefits and also convey some of the benefits of sending the amount of material for waste.

Even if we don't disagree or agree that recycling is closer to source reduction or waste management, I think we can all agree that it is somewhere in the middle and it is better than disposal or release.

It is maybe not quite to source reduction, but it does get at that hierarchy.

With regard to source reduction, if you are recycling, for instance, we use aluminum, recycled aluminum. It has 30 percent of the energy requirements as using raw material.

To me, that is a form of source reduction, because they are not creating the waste in the energy production, but that doesn't show up here.

So, this is going to convey some of that benefit, if it doesn't get all the way. Any more questions on this?

MR. ORUM: Specifically on this, I mean, on site you can report the efficiency. You can expect it to report the efficiency of recycling.

Off site, EPA went through, in the proposed rule, a question, should companies be responsible for reporting the efficiency off site.

The conclusion that it came to -- I don't know if this was in the proposed rule or just in discussion -- was no, because that is a different facility.

I mean, isn't that, though, basically what is --

MS. FASSINGER: We talked about that this morning.

MR. ORUM: It is related to what we said this morning. Isn't that basically, though, the problem here, if there is a problem, that you have an inherently slightly unequal reporting regime between on site and off site.

MS. FASSINGER: It is a little bit different because it might not necessarily be my molecule that is coming back.

Again, in the case of the battery plants, they bring in a lot of post-consumer material from their suppliers.

The battery, after they are through with the car, goes back through a recycling process. The lead is then sent as feed stock which actually counters recycling.

They know that a certain amount of what they are bringing in is from this infrastructure. So, there is a benefit there that you are not mining the lead.

You are not mining the material or you are not bringing new material into the system.

You know, even as indirect indicators of usage, if this number is highly inflated, it may indicate that we are using more than we really are.

By folding this back, it demonstrates that we are not bringing a lot of new stuff into the system; again, that there is a finite box around how much is there.

MR. ORUM: If I can just ask one more question, what is the difference between that and what was suggested for the public data release; that be considered the top of the waste management hierarchy.



After all, it does have benefits of not releasing it directly to the environment. Yet, it has disadvantages to the lack of improved efficiency in the production process.

Isn't that basically what we said in the public data release, you know, recognize like a set of stairs the hierarchy.

MS. FASSINGER: The difference is that this would get more to a facility specific level and the public data release would be kind of general. So, this would give a specific facility that is participating in these activities possibly a little more credit, so to speak, than one where it is not.

MR. ORUM: One final last question. In the state fact sheets, if you had the top 10 facilities like you do now, you could have a little set of stairs for each of those facilities, and change from the previous year or something.

FACILITATOR: We only have another 10 minutes to work on this whole issue. I am going to take one more question and then try to bring it back to Rick to see what he wants to do.

MS. FERGUSON: Just two points. To the extent we are using the amount recycled with the other volumes as a surrogate for the amount in the waste stream, that will not always be true, dependent upon how much you recycle just to have it for a process basis.

There is a disconnect there and it is not a true surrogate.

The second point is back to public policy. Yes, the pollution prevention act was to promote source reduction, but there is a clear statement of policy in part B where Congress declares the national policy to be to prevent it at the source wherever possible but, where not, to be recycled wherever possible, and then disposed of properly wherever possible.

That is all part of this same act, introducing it. So, I don't know that we can just say focus on source reduction, because there is a tier there.

MR. FEES: It is just a primacy issue.

MS. FERGUSON: What I read here is: Congress hereby declares it to be the national policy of the United States that pollution should be prevented or reduced at the source whenever feasible.

Pollution that cannot be prevented should be recycled in an environmentally safe manner whenever feasible. Pollution that cannot be prevented or recycled, should be treated in an environmentally safe manner wherever feasible and disposed of, and other releases to the environment should be employed only as a last resource, and should be conducted in an environmentally safe manner.

To say that everything should be source reduction or lumped together, I think, ignores the tiering that I can read, at least, in the front of the act.

How you report it may lead folks to undertake an activity or not, and may have no effect on what they can feasibly do with respect to source reduction.

MR. FEES: We have a data element of virgin raw material that is saved. Add an element of virgin raw material saved by the fact that you do recycling. That could be on

site as well as off site. Virgin off site, you need to get the information and that gets to that whole issue of going beyond this boundary and getting someone else's information.

MR. NATAN: You have to arrange to have that material returned.

MS. FASSINGER: That sounds like that is the same factor. Maybe we don't need to rename it.

MR. NATAN: The fact is that many facilities already report the amount recycled on site just as what you have described.

We are assuming -- this whole discussion has assumed that the amount recycled on site is calculated in a certain way, which is basically you have got this production process and you have got this recycling process.

Everything that comes out of that production process is either product or it is going to recycling, let's say.

The fact is that many facilities calculate the amount recycled on site by basing it on their product; how much raw material they would need to make that product that year, and then subtracting the amount of actual raw material they put into the system. The difference is the amount recycled on site.

So, you know, many people are already doing that. That addresses the problem of the definition in the rule anyway, or the lack of definition.

FACILITATOR: Okay, we will give it back to Rick for a moment.

MR. LATIMER: I guess I would propose -- I think what I have heard is the original recommendations pretty much stand.

There were several others that were noted, and I just wrote a couple of them down here, about recycling efficiency, look at that, and raw material use avoided. We heard that at the end.

Also, these others could also apply in terms of potential things to look at.

FACILITATOR: Does that work for people?

MR. ORUM: Are you going to give that to EPA, the reporters, whomever, to do this overhead? Process question.

MR. LATIMER: You mean in the summary?

MR. ORUM: Yes.

MR. LATIMER: I hope so.

FACILITATOR: This is their's. I don't take it home. They keep whatever is here.

MS. FERGUSON: Is there one that says, don't add recycling into your total amounts? Maybe I am all by myself, but it just seems that if you captured the value recycled, and then your other categories, that might be a viable option, too, when you add it up.

MS. FASSINGER: That was discussed and, unfortunately, we could not come to consensus on that.

MS. FERGUSON: I don't think we are in consensus on any of these. We are capturing ideas and putting them up there.

MR. ORUM: Do we have consensus, though, that there is a national policy, and it is source reduction followed by a waste management hierarchy? Is there not consensus on that?

MR. LATIMER: Sure.

MR. CHAMBERLAIN: Wait a minute. There is a national policy on pollution prevention, of which there is a hierarchy.

MR. ORUM: But there is a consensus that there is a waste management hierarchy that you can think of like a set of stairs.

MR. ECK: Consensus or not, I think it is embodied in several published documents.

FACILITATOR: Is the way it stands right now that this is the recommendation with all these comments that sort of are being submitted with it? We are stopping this issue here?

MR. FEES: The group can take in the comments that they have heard and try to flesh out the recommendations and then we will see how it flies and then put it before the group.

I think it is still going to get beaten up a lot as it stands.

FACILITATOR: So, what are you asking, just so they know what they are supposed to do.

MR. FEES: To take what you have and what you heard and try to work something up.

MR. ORUM: I would say this is it. Why don't we submit this. Are you saying that the group forms again and goes back and does what?

MR. FEES: You can take this, but if you ask any one individual to say, well, do you agree with this recommendation or not, I think you might get three fourths of the people saying, well, if that is what it is, I don't agree with that.

MR. ORUM: What I would like is to submit this and the discussion we have had to EPA and have them come back and say, okay, here is what more we need out of this group or, thanks, this is enough; we know what you agree and disagree on.

I mean, we can have a little guidance before we go back and work this issue any more. I think that would be good.

FACILITATOR: Do you want to take a 15-minute break? Okay, then we are going to come back and finish up number one for half an hour and go to number four. Please come back in 15 minutes, not a half an hour.

[Brief recess.]

FACILITATOR: Okay, what do you want to discuss now.

MR. FEES: I thought we were going to go back to issue one. I think there was concern about signing off on group one. Group one had some recommendations on issue I.

It included this term quantity of waste managed. One thing that is in there is on site recycling and the idea that if we can't get agreement on what on site recycling means, that there is a problem there.

That also introduces the problem into total quantity and waste management. I believe that the folks who voiced that concern, even though there might be others that have it, were Susi and Joan.

I think what I want you to do is sort of re-articulate that. Also, if there was something that was said in the

ones on recycling that sort of helped you to accept the recommendation of group number one, then we can say that we have come to substantial agreement on issue I.

MS. FERGUSON: I still think our more recent discussion only confirmed my level of discomfort with total quantity of waste managed.

At this point in time I don't know that we are adding apples to apples and oranges to oranges. It seems that we are mixing up our amounts and to me it is not a truly reflective value at this point in time until we resolve what we are going to do on the recycle issue.

MR. FEES: Does anyone else understand that concern? I am not sure that I agree with Susi, but I understand the issue as she is taking it.

Then do you maybe reiterate her opinion on that.

MS. FASSINGER: I would like to second that and recommend that we do not -- suggest that we do not recommend adding a new data element, 8.8.1, at this time until we have definitions from EPA and until we have the new facilities in and can further assess the impact of that.

MR. FEES: That would also be the case for 8.8.2, quantities generated as waste on site includes the on site recycling amount. Essentially that kind of puts that item on hold.

MR. ORUM: Joan, do you mean the final -- in other words, definitions; do you mean the final rule on the pollution prevention act would happen at the same time you would do this.

In other words, you wouldn't do this before you did a final rule on the pollution prevention act.

MS. FASSINGER: Yes, actually I would recommend deferring this until after the rule, maybe as a next phase, until we can see the rule and see the new industry's addition being added in and see how we would aggregate all this data together.

MR. ORUM: I would just respectfully disagree. I see this as part and parcel of the final rule. If it could all be worked through as the same process, I would certainly encourage that.

MR. ECK: I would agree with Paul absolutely. I think the implications of the final rule are exactly these three items here. So, I would like EPA to address them all at once.

MR. CHAMBERLAIN: I agree. We need some clarification and definitions before we can move forward with it.

FACILITATOR: Are we stopping discussion of number one there?

MR. CHAMBERLAIN: I think we have a recommendation, do we not?

MR. FEES: A recommendation not to do anything.

MS. FERGUSON: Process check. Is the issue to try to work with EPA to develop things that are representative or just wait and see what happens.

To me, they were all the same issue, and I think we should be at least making a recommendation or giving them options with pros and cons for that rule making, because I think it is integral. I don't think we should wait for the rule and

then decide what we think.

I don't agree with the group one proposal as it is because I don't think it fairly adds up or reflects what we should be capturing personally. That is where I was coming from.

Maybe there are different ways to do it and maybe we should flesh out other alternatives and give them the pros and cons of those alternatives.

MS. FASSINGER: Do you have a suggested alternative?

MS. FERGUSON: Yes, mine would be rather than total quantity, break out recycling as its own category and then recapture the rest of the information.

I don't know how you would do that, one, two, three, but I think that would make more sense to me. All the information would be there. It would just be categorized a little bit differently.

MR. SKERNOLIS: Can I ask -- I just want to make sure where we are with regard to your recommendation, because what I heard Paul and maybe even Maria suggesting is that they don't think that is an accurate interpretation of the statute, and it isn't something that this group can -- in other words, I didn't think we were addressing issues of statutory interpretation in this group.

I am not saying I disagree with your proposal. I just don't know whether EPA can consider it.

MS. DOA: I think the total quantity of waste is the quantity of the chemical entering any waste stream or otherwise released in the environment prior to recycling, treatment or disposal. I think it includes recycling.

You may have issues with the recycling and how that is quantified, and I understand that. Given the issues and what recommendations you would have about recycling and how it is added into there, I asked the question of whether that precludes you from taking the total waste and separating it into generated on site and generated off site.

That is my question to you. Can you do that, and so have the 8.8.1, 8.8.2 and 8.8.3, is one issue, and then separately deal with the recycling issue as part of total waste, given that recycling will be in there somewhere in the statute.

MR. REIBSTEIN: Can I use a visual aid? This, Maria, can be counted. This is you bought it and this is your recoverable, and you didn't recycle it yet. You are saying that has to be counted as waste before recycling.

That is okay. You can do that. The question I have is do you have to then count it after recycling again and again and again.

MS. DOA: I think the question -- when you deal with the recycling, I think in a way that is a separate question.

If you say there is a total waste number that has to be reported -- look at the question that way. There is a total waste number that has to be reported. Should that number be subdivided into generated on site and generated off site. That is one question.

The second question I think that you are talking about, Rick, is what to do with recycling that gets put in that total waste number.

I am just asking if you can bifurcate that, and then address -- or if you think that is impossible. I see this as bifurcatable.

MR. REIBSTEIN: I agree. I would like to concur with Susi's up to that bifurcatable portion.

I think Susi's recommendation slightly amended, so that after you have already done what you have to do under the statute, from that point on, break it out separately. That would be my recommendation.

The first time it comes off the process, then if it goes for recycling, count that separately and don't double count again and again.

MS. FASSINGER: This just becomes, once you have a total -- we have a total waste number, and let's say we agree or disagree that you can subdivide it. Okay, you do that; fine.

Then the question becomes the total waste number. That is where your issue and I think maybe Susi's issue gets at.

Recycling is part of this. The question is how should it be captured. Am I getting to the crux here?

MR. REIBSTEIN: Yes.

MS. FASSINGER: Going back to the statute, the statute asks for each of the following, the quantity entering waste streams prior to recycling, treatment, disposal, and the amount recycled.

It appears that we are reporting, looking at trying to total this, item one under the statute, but we are not reporting number two. That is a case for reporting recycling separately, or the amount that you bring back, maybe, as we had in that equation.

MS. DOA: So, you are suggestion that we either just have one total waste number and not have it speciated the way it is now between quantity released, quantity treated on site, off site, quantity recycled on site or off site, quantity recovery on site or off site.

Just have one number of total waste, and then have the separate quantity recycled.

MS. FERGUSON: I read it as reporting each one individually.

MS. DOA: Right, I know. I was just saying that right now, because of whatever the compromise was before on the form, the first one was speciated into 8.1 through 8.7.

I think at the time -- I want to preface this by saying it is my speculation -- they thought that two was already covered by the speciation of one.

MS. FERGUSON: I see it as different data elements. I see number one as the amount going on, but then number two is the amount which is recovered and brought back into the system which we don't have on the form right now, which is what we were trying to add, and then keep the speciation under one still, which I think is consistent with Susi's suggestion.

MR. BROMLEY: I am totally confused now. I guess I was going back -- I also heard this morning that there were some real issues, some definitional issues as to what waste is, before we jump into making these recommendations of 8.1, 8.2, 8.3, where it says total quantity of waste managed, gen-

erated as waste, et cetera.

Does EPA have a position yet that they are going to propose in the new rule making that they can give us, so that we can put our heads together to give the recommendation based on what your position is at this time. I think that is the crux.

MS. DOA: I think when we look at total waste, it is total waste managed by the facility. I think that has been our stance for a long time.

MR. BROMLEY: What is waste. That gets back to what Paul was saying.

MS. DOA: Whatever it will be, it will be whether it is generated on site or off site. I think you can use that.

MS. FERGUSON: That may be where I am having difficulty is that I see that you could get materials from off site that you recycle that don't add up to what is in your waste stream.

If I can recycle and use my process, I may produce less of the toxic chemical that actually goes into my waste stream.

That is where I see there is a break where your raw materials don't necessarily add up to the amount in the waste stream.

In item one, what happens when you take in materials from off site to put into your feed stock, and you have less coming out in your waste stream prior to disposal, treatment and recycling from your process.

MS. DOA: I think your issue has to do with recycling, and maybe I am misunderstanding.

MS. FERGUSON: It is math. I am having a real problem trying to line up my apples and see that my apples and my oranges add together.

I think you can get more into recycle than are actually in the waste stream from the process, and I don't know how to account for that.

MR. BROMLEY: Let me give you an example, again, the F006 example, depending on how you define what waste is.

If it is waste received from off site for waste management purposes, that is something different than for feed stock.

I don't know how you are going to define it, because if it is just waste, I have F006 that, under RCRA, is defined as waste.

If I put 100 pounds of that on 8.8.3 as quantity received as waste from off site, that would be 100, but 8.8.1, total quantity of waste managed would be zero; or would it be zero?

MS. DOA: Right now, if it is a RCRA hazardous waste, you have to take a RCRA hazardous waste and report it from 8.1 through 8.7. That is right now.

MR. BROMLEY: But if we are not taking it on for waste management purposes, but as a product --

MS. DOA: When EPA brought this to the table, when we discussed this last week, the presentation was not to get into definitions.

Given the form, given the way the form is now, what could we do. Could we bifurcate this -- should we add a total

waste number and should we bifurcate it.

I would really like to keep the focus on that, instead of getting into definitions of how are we going to exactly define recycling. How are we going to define total waste.

That is going to be really part of this rule making, and the committee before this had looked at specific issues, and Paul was on that, on definitions.

MR. BROMLEY: That is why I was asking whether you guys had a position, so that we could address our recommendations based on what we think is going to come out in the rules.

MS. DOA: But the proposal is not to the point where I can release it because it hasn't gone through the whole agency.

MR. BROMLEY: That is the answer to my question, I guess. That is what I was looking for.

MR. ECK: Given, I think, that as Maria points out, the original idea was to try to better characterize the implications of bringing the hazardous waste treatment industry in where they would be managing a lot of hazardous waste they were not able to reduce, to do source reduction, for example, I think I would recommend that the proposal in issue one, in some fashion, has met with -- recommend isn't the right verb here.

I think that the proposal probably answers the question as well as it can be answered. I think that as long as you all at EPA understand that you could screw this up big time without doing the definitions right -- and I am sure you do -- then it is probably not necessary for this beleaguered committed to wade into the definition issue. We will all get our chance during the rule making.

I don't have a good feel, David, for how you want to take these four issues we have discussed beyond the report of these two days meeting and prepare a recommendation to EPA.

On the one hand, I think the good discussion we had on this and the other two issues will be very useful for EPA, following several lines of thought, not reaching a consensus, but exploring the concerns that would be needed to be addressed in any rule making or following form change.

On the other hand, if you think there is a need for something more formal, or if EPA does, we would have to go back, it sounds like, on at least this issue and maybe on the recycling as well, either off line or through some process tomorrow.

MR. FEES: When we started today I was hoping that we could come up with a solution on a given problem that we had to look at, that could be a synthesis of different ideas and discussion that EPA had originally recommended, and hold that up as a recommendation.

Then, below that, have the discussion that people present against or not fitting in with that recommendation; that is, taking the best alternative that we have, that we developed, and putting that with our recommendation with sort of dissenting issues underneath that, sort of qualifying that.

That was my hope, to take each of these issues and get it that far. I don't know if we can.



MR. COMAI: I just had a point to make on this F006 issue. There is this business with David on how F006 can be reported in a separate EPA multi-statement.

We are getting to the point where if you talk about recycling solids, that is a different animal than recycling sulfuric acid. Both of those are certainly different animals than trying to recycle F006 waste.

If we talk about relisting the F006 waste under RCRA and therefore it is going to impact what is going to have to be reported on the TRI, there are a lot of people who live around F006 recycling and waste treatment facilities who want to know how much is going into those facilities and how much is coming out. You really inhibit people's access.

MR. BROMLEY: It depends on what their definitions are. I mean, RCRA has the manifest of everything that is available.

If they were RCRA definitions, we could apply them. If they were non-RCRA definitions, we could apply them that way.

The recommendations that were given this morning, I would agree with, depending on how the definitions come out.

As a caveat to kind of address what David was saying, that these are the recommendations, and I agree with those definitions. But they may change, because definitions don't come up consistent.

MR. SKERNOLIS: I want to make sure I understand that, because I am not sure what the point of delay is. What I hear Maria saying is that the status quo is the worst case.

In other words, right now, if this went into effect, in Corey's example you would have to report the constituent, not the F006. You are reporting a constituent that is contained in F006.

You would have to report that under 8.8.3 as the quantity received as waste from off site. That is the status quo. That is the status quo. I am not saying that is what it is going to be.

The better case is that there is some liberalization of the language of what constitutes a waste stream in that example, that you would not have to report it as a waste off site. You would have to calculate it in your otherwise use total to determine thresholds.

My question is, I guess, to Corey, in your specific case, is the point that the acceptability of what gets included in the quantity in 8.8.2 depends on whether you are recycling?

This recycling element is resolved in one way or another? In other words, are you saying, I oppose this recommendation unless EPA changes how it addresses F006 and I use this product as feed stock, is what you are saying.

MS. FERGUSON: I am having some side bar conversations to become educated. I am saying if that feed stock doesn't count in your recycling, then indeed what you -- the residues, the toxic chemical that you expose, treat, send into the environment, or recycle back up, should add up to what is in the waste stream. Then it makes sense to me to do 8.8.1 this way.

If, indeed, you are recycling other materials from

off site to feed into your process, that gets counted against you as recycling, then to me they don't add up.

I may just be confused about how we are reporting, so let me just throw that out.

MR. SKERNOLIS: I am not arguing the accuracy of it. I was just trying to determine what the opposition was, that the status quo is unacceptable for purposes of this recommendation. I am not asking whether it solves the problem.

MR. BROMLEY: I am not sure that what you said was the status quo was correct, because we have direct reuse of the F006 itself. So, is it a waste or is it not a waste?

MS. DOA: That is not on the table here, I think. The definition -- are you all listening to this; I think it is answering your question.

The definition of waste is not on the table. As I think John and Paul and a number of other people dealt with this in a previous NACEPT.

It is going to come up in the rule making that is coming up and I know it is going to elicit a lot of comments, but the definition of waste and the definition of recycling are not on the table right now.

I think that we provided in the issues paper that went into this as much as we could give on this, but I am going to ask the question on number one a little bit differently.

Given the way the form R is now, if there were no changes and no regulations that come out, given the way the form R is now, would it make sense to add the three data elements that group one recommends; purely mechanical; no definitional issues here.

MR. BROMLEY: Without doing any definitional changes at all.

MS. DOA: This is just given the way it is now, I think that is --

MR. BROMLEY: The status quo is that you don't have any definitions. So, if we change something, we don't know what we are changing it to, because you still don't have any definitions.

MR. FEES: Right now people are reporting that on site recycling as it is now. So, what is better; keeping it completely the same as it is now, or adding these new elements that give some indication of on site versus off site.

MS. DOA: Right, those are the only two options.

MR. BROMLEY: I see a cart way before a horse. As I said, I support these things, but it is dependent upon what the definitions will be, as to finally whether those are good recommendations or not.

MR. REIBSTEIN: I will go out on a limb. I think it will be an improvement, even if the definitions don't turn out the way everyone wants -- I still think it will be an improvement.

MR. FEES: Anyone else?

MS. FASSINGER: I am trying to get back to what the issue was that prompted the recommendations. It seemed that the issue was to try to segregate on site versus what is coming from off site.

Even if we had to include recycling in 8.8.2, it

seems to get at what is possibly production related versus what is waste management.

Again, looking at what the issue was and looking under caveat two, trying to put a total to reflect multiple handling, I still don't understand how that total would better represent multiple handling, and how that 8.8.1 element addresses the on site versus off site issue, which appeared to be essentially issue 1.

MR. SKERNOLIS: Can I respond to that? The option of not having the 8.8.1 would be to break out quantity generated as waste on site or received from off site for recycling, for energy recovery, for treatment, all separately.

The advantage of having 8.8.1 as it is stated there is you only do it once rather than separately for each of those different elements.

My bias is I would rather see it all once, because I think this is just a level of complexity that wouldn't be that well served, although it would be useful to have it that way.

FACILITATOR: I am going to ask that we take a vote, because we have no more time for this issue. Right now they are not going to answer the question that you are asking.

The question is, is it better to leave it the way it is now or to add these new data elements. One person said yes. No one else answered the question. If you think yes, can you raise your hand?

[Eleven hands raised affirmatively.]

FACILITATOR: No?

[Four hands raised negatively.]

[Two hands raised as not voting.]

MR. FEES: How many people are not voting.

MS. FERGUSON: I would ask why there is not a third option to just leave 8.8.1 off and add 8.8.2 and 8.8.3.

FACILITATOR: Okay, the last issue that we have to deal with is number four.

#### **Agenda Item: ISSUE IV.**

MR. NATAN: Group four was asked to take a look at the material for calculating the production index by using the ET method and recommending whether EPA ought to include that.

We had one conference call this week and unfortunately Rick couldn't be in it. He had different ideas that he brought up subsequently that I want to give him time to address at the end. So, we are going to go through this and then I am going to let him present his idea as well.

The group more or less agreed that there are many different methods for calculating the productivity or activity index.

EPA ought to include guidance for more than one method. The guidance needs to be expanded in many ways, the first of which is telling facilities why it is that they are calculating this thing in the first place.

Taking out some of these numbers doesn't tell us anything about performance and there are a variety of reasons why total waste management could change. Production is just one of them.

The guidance ought to explain the uses of this index and that -- there is an example in here that you can attach cost savings to it and assess the value of particular chemi-

calcs. You could develop a product or process yield measurement.

I have thrown in here something. When I went around evaluating facilities that had participated in New Jersey's planning program, I found that only 25 percent of the facilities had ever calculated waste generation per unit product before they were required to do so.

Now, that might seem awfully low, and it struck me as awfully low, but that is the truth. So, this is certainly something to be stressed.

There also shouldn't be an enormous amount of effort on the part of facilities, and the guidance needs to have more examples of how to calculate this production activity index so that it makes sense, and also how you shouldn't do it.

Moving on from there, the fact is that if there is more than one method, they are appropriate in different situations, but you should also have to indicate which method you use to calculate this production or activity index that ought to be included.

There ought to be a list of codes for the different methods and you relate the ratio and then you report what method it is that you used for it.

The guidance needs to be clearer, although I know that it does say that it needs to be calculated for each chemical. We also think the guidance needs to be beefed up in that regard.

It is kind of ridiculous to expect that the activity index is going to be the same for every chemical on site. I mean, I guess it is possible, but it generally doesn't happen.

We also believe that EPA ought to consider working with industry groups developing some guidance and work with other stakeholders as well, so that these activities and production indexes are actually useful for a wide range of data users.

The last one, letter E, goes back to group one. This production or activity index ought to apply only to the amount of waste managed on site that was also generated on site.

Otherwise, it doesn't really make any sense.

We then went ahead and looked at the New Jersey method in more detail. There are some benefits to it. It will provide useful information in general.

If it is doable for the facility, it usually provides information that can be used to track progress. It is one of the bases of New Jersey's planning rule. They use it to track product.

If the products remain the same from year to year, the method may be used to calculate the waste not generated due to source reduction, as long as production level doesn't change very much. So, that is a benefit.

Although it might be initially difficult to do, New Jersey facilities have figured that once they have defined these products and processes and grouped them in a way that makes it reasonable to calculate this, that it is easy to do year after year.

The drawbacks of the New Jersey method in splitting it out, it still assumes that there is a linear relationship between production and waste generation. This just shifts it

at the process level instead of the facility level.

It doesn't necessarily work for significant events that have nothing to do with production. This is the more important one. It is very difficult for facilities that have many processes or products.

Chemicals that are otherwise used may be used in several products or processes, although this process may be more difficult for chemicals that are otherwise used.

It may also be difficult for batch processing, unless there is successful grouping of batched processing in some meaningful way.

Then the other comments that we had on this, going to the grouping, New Jersey DEP has excellent guidance in its pollution prevention planning document, on how to group processes together and grouping products together.

That would definitely need to be included in the form R instructions, if this method were going to be employed.

Something that we discussed is that if a few products or processes account for the vast majority of a facility's use of a particular substance, then perhaps the New Jersey method could be employed by using some kind of cut off rule for total use, like 90 percent of your total use.

If you have 40 different products that use that chemical and three of them account for 90 percent of total use, then perhaps that might be sufficient to use those three.

In all of these methods, the fact is that there still needs to be some indication of why the number is not 1.0 as well; essentially why they change when they get this back later.

The other thing you need to emphasize about New Jersey is that this method is not necessarily valid for comparing one facility to another because it is product or process based, and that varies from facility to facility.

So, one of the other methods we discussed at the meeting was the use ratio method that Rick put out, the benefits of that, measuring chemical use efficiency. Everybody wants to be more efficient, so presumably measuring chemical use efficiency is a good thing.

For the most part, it is done with information that is already there and many facilities already calculate total use, although they don't report it.

Since the use ratio would give the reported instead of total use, then you would have an indication of how use changed without some of the confidentiality issues associated with total use reporting.

You don't need to tally your products and processes for this in general. So, for multiple uses, that might be good.

There are some drawbacks to it, in that the production level may not relate to the use level for a particular chemical.

If you were trying to get at the impact of production on, say, waste generation, the use ratio would not do that for you necessarily.

Something that Joan had mentioned, the guidance would need to stress that because this is called use ratio, it should apply to all uses of the chemicals at the facility.

So, it should apply to chemicals that are manufactured, processed and otherwise used, to avoid confusion with the word use. It does not apply only to chemicals that are otherwise used.

Having gotten through those, the point remains that you still don't know necessarily why -- I am going to have to use the dreaded 8.8.1 or 8.8.2 -- you don't know why that quantity changes from year to year.

You may have -- if you use the production index and the production index went up and 8.8.2 also went up, you could assume that was due to increasing production, but that might not actually be the case.

You could increase production and that number could have been the same, but you could have done something else. So, that quantity 8.8.2 could actually go up.

Let's say that you reformulated, so that -- for some reason, but production remained the same, for example.

A couple of years ago when I was in my former life, I was asked by EPA to do a survey of facilities that have large decreases in essentially what was 8.8.1 between 1991 and 1994.

From there, I came up with a list of about 10 reasons why that would decrease.

What we did is, we looked at those and added some more and added some that were pertinent to increases, and came up with a list of reasons why the quantity would change from year to year.

Essentially, you would want to probably report these as codes rather than a check off box. The idea is that there would be more than one.

The way facilities now report, the first SIC code that they report is their primary SIC code. The first code you would put down is the one that is most responsible for the change. Then after that, they could be in any order you wanted them to.

This does not, obviously, convey complete information, but if you are looking at a particular facility and you wanted to know what went on from year to year, this would at least give you the place to start when you made the phone call.

So, we have 14 of them. The first one of them is, process or product changes that result in a change in the amount of chemical use per unit product.

Essentially, that is source reduction, but it could also be increases if you reformulate, in some ways, you increase your use of unit product.

Number two would be a substantial new application for the chemical, and that could be an increase or decrease.

Number three would be changes in production level.

Number four, considering as product what was previously managed as waste. If it is now product, and you were reporting it the previous year, and you are not reporting it now, you would obviously use that there.

It goes the other way. Rick had pointed out that there would have to be some caveats as to that it was being used in the same manner as comparable raw material and, if it was used in a manner that constituted or was similar to dis-

posal, that would not count as product, but that is just something that would need to be worked out.

Number five is change in calculation method for any of the quantities with no change in activity. Essentially we are getting at -- this didn't turn out to be a big deal for anything but releases, I found, when I talked to facilities, but sometimes they change their estimation methods for releases, and that would totally change the number that they had.

Number six is a change in definition of activity with no change in activity.

What this mostly applied to was facilities that had reported a large quantity for on-site recycling one year and zero the next year.

It turned out that they hadn't done anything differently. They had just decided that this was integral to, or necessary for the production process. Therefore, under the Pollution Prevention Act, they no longer had to report it.

It kind of gives an obligation to go back and revise what they had reported in previous years, but many facilities were electing to do that.

If you compare any chemical at a facility, between any two years, there is this potential for a very large change, and they go in both directions as well.

There were a lot of facilities, for example, that were doing on site recycling of metals that decided, well, it really wasn't part of the production product; so they had to count it differently.

So, suddenly there was this enormous 100 million pound increase in the amount of lead recycled, let's say. The data base is full of those.

Let me just give you an example. If you take only the forms that have a decrease, number six here was responsible for 62 percent of the decrease between 1991 and 1994.

Number seven -- this was for Wilma - outsourcing all the reported process, and the other alternative would be purchasing all or part of the process from another facility.

The caveat there is that it was previously or now reported under a different TRI facility.

Number eight, one-time activities, including unplanned production activities and irregular maintenance.

Number nine is a little different. It is periodic activities. The fact is that our group wanted to make some kind of distinction for things that might happen only once in a calendar year, but were going to be repeated in subsequent years.

She gave an example of moving a pile of something from one location to another on site, that had to be reported again to really have any meaning, because it had already been reported once. This number 9 would capture that.

Number 10 would be operations that commenced or ended either during the current or the previous year. Essentially, either this year or the year before did not represent the full level of production.

I think that ought to be accounted for differently than other quantities.

This is different than substantially new applica-

tion, at least in my mind.

Number 11, installation or removal of an in-process recovery system. Now, I included this because when I did my survey, there were facilities that had genuinely installed a brand, spanking new in-process recovery system. It was genuine in-process recovery.

This is distinguishing it from those that merely redefined their activity. So, in theory, depending on how EPA wanted to consider this, if they wanted to consider this as part of number one, that would be their choice to do that.

Number 12, increase or decrease in the amount of waste managed from moving up or down the environmental management hierarchy.

This got to be the recycling issue, and how you can in recycling, if it turns out that you would be reselling 1,000 pounds, but you recovered that 1,000 pounds and you were recycling over and over and over again, you could very well be -- under some circumstances there could be a change in the total 8.8.1 or 8.8.2. Therefore, you would want to be able to account for that.

Number 12, very important, normal variability in quantities. There is very often a variation from year to year that has nothing to do with activity, but just some kind of variation in measurement of the quantity.

Number 14 would be other, with a please explain. We want to try to keep number 14 to a minimum because TRI data, the data base is not very good at tracking myriad.

We were hoping at least that numbers one through 13 were going to capture most of the reasons that the quantity would increase or decrease during the year.

Again, I wanted to stress that this is information that supplements the production or activity index, because it gets to the heart of the matter.

People want to know if there has been source reduction. If number one is reported, then you will know that there was source reduction. So, that was at least the intent of this. So, I will open it for comments or questions.

MS. FASSINGER: Were you recommending, when you had the discussion about the large facilities had the option to pick the top three?

It sounded like you had a modification that might work for those facilities. Is that sort of a subpart to the recommendation?

MR. NATAN: It was something we threw in there because it was discussed. I don't know how EPA feels about that.

The fact is that the New Jersey method is cumbersome if you have got a lot of products or processes.

MS. FASSINGER: But if you are talking about having a menu of options to pick from in terms of to reflect the business needs of the industry, that might be helpful, as long as they are consistent in how they report it, and you could give some guidance there.

MS. FERGUSON: I think the intent was to apply the kind of 90 percent rule for these, to provide a better indication of the more significant activities and not trying to chase every last molecule.



MS. FASSINGER: I was trying to think of some of our large petrochemical companies that have over 170 emission points and 50 different plants.

The reporting burden is incredible there. If we had another option for them that is good at reflecting the production values on a year-to-year values, I want to make sure we have those kinds of models.

MR. NATAN: The idea was that currently the production activity index is not necessarily well calculated.

MR. REIBSTEIN: If I had been in the conference call, I would have stressed the concept of unit of product, the idea that you should define what it is that your chemical does, what is the work that it performs and design your production ratio or activity index with that in mind, as the first step.

That is how we do it in Massachusetts. The first thing we have you do is define your unit of product. What is the work that the chemical does and unitize it. Find some way of unitizing it, and that is how you build your production ratio.

MR. NATAN: That is the idea behind the New Jersey method as well.

MR. REIBSTEIN: It is just a way of expressing it.

MR. NATAN: Yes. The fact is that if the chemical works in a lot of different ways at the facility, it is still a difficult task. You are still making them do that.

MR. REIBSTEIN: I guess the idea that goes along with that is then the guidance contains more examples of units of product and how to define them. I think that EPA's guidance can be enriched in that.

MR. SPRINKER: In thinking back to this issue of, you know, the 90 percent issue, I am thinking now, would that possibly create a problem in going from year to year, where you might see some significant changes from year to year, making year-to-year comparisons almost -- I don't want to say meaningless, but decreasing the meaning of year-to-year changes. If so, how can we get around that issue?

MR. NATAN: It depends on what you are going to use this thing for. If you are actually going to try to normalize the data with it and compare it from year to year, then it is difficult.

The fact is that if you substantially change your mix of products from year to year and you are adding new products and deleting old ones, then this thing is going to be difficult to compare from year to year. That is a fact of life.

MR. SPRINKER: So, I guess it comes down to, is there a usefulness, do we need to design something that will give us something from year to year, or is that really an important issue.

MR. NATAN: The question is, do the explanations for changes from year to year help in that regard.

MR. SKERNOLIS: I was actually going to propose something radical. When I read this document last night and then was listening to your presentation today, I am struck, as a potential data user, by the non-utility of the quantitative aspect of this and the great utility of the qualitative aspect

of this.

We are talking about using different indices, fraught with problems in terms of their accuracy, fraught with problems in terms of their applicability for particular types of production and service operations.

At the end of the line, the number, it seems to me, has very little value.

What you are really interested in, what I heard you say in terms of the kinds of things people ask is, did you do better, stay the same, or do worse. Then we want to know the reasons why that happened.

I guess my question and proposal is, there is a group that will say, you know, this is not an immediately solvable problem; we don't have the science and the methodology worked out to that point.

Maybe what we ought to be doing, just for the time being is saying better, the same or worse, and using your 14 reasons, and letting it go at that.

Then people can use the indices options to do their qualitative evaluations. But they are not putting out a number there on the form and we are not trying to look at this number to try to make sense of it, because it doesn't have any sense. It doesn't tell you anything.

Mr. NATAN: If you say what that number is, it is a use index, and you say it is a use index, and it does mean something.

MR. SKERNOLIS: The .9 doesn't mean anything. What you really want to know is, I did better, because you don't know what .9 versus .8 means. You just know they did better.

MS. FASSINGER: The idea was to try to roughly quantify that. That is why we wanted to allow a variety of options for the activity, the normalization index.

A good example of that is we found through the CSI, some of our CSI work, that our total quantities generated appeared to have doubled, but our production had gone up four times.

So, our total quantity generated per unit was actually cut in half.

Now, if I only checked the box and said, I had a chance in production, I get the qualitative but I don't get any indication at all of that qualitative difference.

We understand that if you have a multiple product facility or depending on our different operations, we can't all do it the same, and we can't necessarily even do it the same within sectors.

We might be able to for certain narrow SIC codes, but we thought it did provide a little better indication of the degree of change, as well as why.

MR. SKERNOLIS: I think I heard from the presentation is a finite set of activities, which this number has a certain precision, like you were talking about, the unit measurement.

There might be an operation like manufacturing whatever, where you can make those kinds of calculations.

All I was getting at is, given the wide variety of sources, given all the new smaller kinds of sources that EPA has expanded this reporting requirement to, it seems to me

that this value, this number that we are putting in the system, the quantitation of it is increasingly less useful for comparative purposes.

It might be very valuable to you for informational purposes. But as a public statement of something, I don't know what it is telling me or us about what is going on, other than a person saying, I did better.

MS. FASSINGER: It is not a number that could be aggregated across TRI.

MR. SKERNOLIS: Or compared between two facilities; right?

MS. FASSINGER: It is meant to provide better information at the facility level, or possibly within a sector, depending on, again, we had recommended that we get input from the various sectors on whether that would be possible or not.

MR. STEIDEL: One of our recommendations was, if we have to rank, rank using normalized production data. Are we saying that we can't rank, then, using any kind of normalized production data for the purposes of PDR?

MR. NATAN: If that production index or that activity index is calculated a number of different ways even at the same facility for different chemicals, it makes it very difficult to normalize ranking. I don't think we can do it that way.

MS. FASSINGER: A good example would be otherwise use. Say we are using something in production. We can normalize that by number of units going out, if it is a simple facility.

If you have multiple products, that is not easy to do. You might have to have another factor, which is why we introduced various options and not just tried to lock into one.

If it is an otherwise use, you might have to use a different activity index, and instead of using a production unit, you might just say, well, you know, I painted this equipment twice in the year, or I otherwise used maybe for clean up or something, I used this material five times during the year. Then that five would be my activity index.

I think Rick has got a proposal of how much you used before versus how much you are using this year. But it allows that flexibility that we need, while giving us a vehicle to convey a better picture of what is going on, rather than just mass numbers.

MR. CHAMBERLAIN: I guess a general comment is that this is a good summary of all the concepts, I think, that were presented at the last meeting. It is an excellent piece of work.

I think the CMA can support the options presented here in terms of the flexibility that is provided.

Again, I guess, in the final analysis, as Joan pointed out, you have to be real careful about how you use the data in terms of aggregate versus a facility-by-facility basis. That would be the big watch out.

MR. ECK: Just in response to what Ed said, I guess, I think I have found with our facilities that, while the results of trying to calculate some sort of activity index or production ratio are sketchy or somewhat ludicrous, the pro-

cess of trying to calculate it has been helpful for those facilities that sincerely tried to do that, in helping them understand the impacts to emission changes, to process changes on their facilities.

I think most of our facilities that I am concerned about tend to fall into exactly those categories of multiple uses, hard to quantify.

Still, I think it is probably worth keeping some sort of requirement for a ratio in there, for the sake of the exercise if, in fact, we find that the ratio is not that much use for year-to-year comparisons or for facility-to-facility comparisons.

If, in fact, the results of trying to hypothetically indicate how much waste production or generation has been avoided through source reduction is still not much more than a feel good exercise, I still think it is worth doing, again for the sake of the process, for the learning experience that I have seen my people go through trying to do it, and for the better understanding they have of their waste generating processes.

MR. REIBSTEIN: I want to emphasize that same point and make another one. If you are serious about doing source reduction, you have really got to develop a sophisticated understanding of the work that your chemical does and the role it performs in production.

Good business necessitates understanding the production yield related to that chemical. So, I don't think we are asking the company to do anything that is not good business. It is good for them anyway.

If they don't take it seriously, it is a meaningless number and a waste of time, and it may be difficult to do in many cases, but in many cases it is beneficial.

However, it also does have aggregatable use. Tony has demonstrated that. Ken is not here to talk about it, but they have, by looking at the proportionate contribution of each chemical, and they have looked at the production ratios for each chemical, they have been able to aggregate the total production estimate for how much production overall in the Commonwealth of Massachusetts has increased, using this number.

It may be a very soft number. There may be a very large realm of error, but it is still better than having nothing at all.

MR. SKERNOLIS: What I am talking about is what do you put on the form R that the public sees and has to interpret.

I am not talking about whether the company should do it. I agree with everything you just said. What I am saying is, you are putting out a data point for the public to interpret.

What I have heard is you have a series of unsophisticated tools that tell you nothing in terms of the number, for public purposes.

It might be very valuable for you, as a company, to say last year I did .9 and this year I did .8. But the public is looking at these numbers in context and doesn't know what that means.

You are going to go out with them and say, guess what, we don't know what these numbers -- you know, we are using five different methods. I am worried about that end of it, not the value to the company. I totally agreed with everything you said about that.

MR. REIBSTEIN: I didn't comment on that, because I thought that part was understood. Without that, the public has less of a context within which to understand waste figures or release figures.

MR. STONE: Two points. One, we used the New Jersey method as an example, but if you go back to page one, any method that you justify you can use to do that index. That is number one.

For people to use it in a meaningful manner, maybe a lot of the public can't, but a lot of public interest groups can. I am just thinking of our industry, the foundry interest.

Next year, the problem would be gathering every SARA 313 that the foundry does, because we have got some new emission factors for what is coming out of foundries that show significantly less than when they were generated in the early 1990s.

They are going to have some great drops in the actual emissions, and yet their production index is going to be exactly the same.

With that series of boxes that you check off -- I think it was number eight -- change in calculation method, every single one would have that box checked off and you will know basically that is the reason.

Somebody has come up with some new emission factors for the chemicals that are being reported. But I think it is very worthwhile.

MR. NATAN: The same thing happened in the paper industry. I think it was 1994 that there were new emission factors for methanol emissions.

MR. SPRINKER: Actually a couple points. I do agree with folks that this is useful and has varying use depending upon who is actually looking at it.

My union tries to look at the production index and truthfully, right now it is very unclear as to what that really means for any chemical from company to company, whether they are calculating the same way or where they came up with that, or what caused that change. I think the quality elements in it would be very useful.

I guess when I said earlier that it might be a little hard in cases to try to track -- to figure out if there was meaning from the change year to year, I didn't necessarily mean from one year to the last.

Let's say you have a 1.3 production index one year and a .9 the next, that may not necessarily -- you are going to have to look at each of those periods of time to see what really happened there.

Again, I would like to emphasize that workers at the plant especially may find this useful, to be able to track what the company is actually doing in reduction.

I think one caveat on this whole thing is, I guess we didn't really look on the committee at coming up with a

real economic indicator, as Bob mentioned.

I guess that means that we deviated a little bit. I am not sure if we did or not, from this, and that still may be an issue as to how to deal with the real economic indicators across sectors.

MS. FERGUSON: Two quick points. I think that flexibility is real important and it is real nice to see. The other thing is that our staff took a look at the concept of why the differences from year to year. That would be very, very useful to have in terms of analysis.

MR. NATAN: Actually, the study that I did, I think they gave us the July issue of Environmental Science and Technology and it was published in there.

MR. FEES: I would like to reiterate what Sam said about this summary, and it is a very good look at the issue. They raise a lot of good points.

I would like to see an expansion of the guidance on the calculation of the production index. There are specific items listed in here that could be used to beef up that guidance.

MS. FASSINGER: Expansion of the guidance on what, David; I am sorry.

MR. FEES: The guidance for determining the production index. That, I think, could be even a separate guidance document that could be then sent with the form R, that would be more extensive than what you need to fit into the form R instructions.

I also liked the checklist of reasons. I would like to see that included. I think they are a very thoughtful list. I think it brings a whole lot of good qualitative information to the production index.

MS. FASSINGER: I just have a few editorial comments, just in catching up with, just following up on our group, last call, and also responding to some of the issues that were brought up here.

On number nine on the last page under the check box items, periodic activities including maintenance should probably be a separate item from repeat reporting of quantities, previously reported. So, we need to maybe break that into two.

I would suggest that we add an economic indicator as well as production in the use ratio. Under the production index, maybe speak to that more generically and not specifically have New Jersey in the title.

MR. NATAN: We were asked to comment on the New Jersey method, so we did.

MS. FASSINGER: We have that under it in the discussion. That is pretty much it. On item 6, number 3-6, also I think the recommendation is just to have a box for change in definition of activity.

The rest of that whole paragraph is kind of descriptive background, but not related to the guidance. So, I would just suggest striking the rest of that paragraph.

MR. NATAN: Some of this was added just for those who were reading it.

MR. FASSINGER: I think you did a great job.

MR. ORUM: I think this is a very good summary. The

checklist of reasons, again, is especially helpful. We have been having a discussion for some years as to what are the real causes behind year-to-year changes.

If that discussion, which is sometimes out in the press and elsewhere, is to reach the next level of maturity, I think some kind of indicators like these, like they have in Canada, are necessary.

MR. REIBSTEIN: At lunch we presented something that I think merits a little discussion because it relates to this issue. I promise it is not the same recycling slide we showed twice.

MR. SKERNOLIS: Let me make one comment before Rick gets started on this. Back to number six, I would add in change in definition of activity or new interpretation. I think new interpretation we have been hit with several times by EPA.

MR. ORUM: Can I ask just a clarification? Is the general notion that you have to use the same method for each constituent, even though they might be different process, and once you start with a method you have to stick with it from year to year? If you change it, you have to go back and recalculate all your previous years?

MS. FASSINGER: No, I think we wanted, again, to maintain flexibility and however you are applying that chemical that year, you would apply a suitable activity index. If you switch, you have to put a letter of explanation.

MR. SKERNOLIS: So, even within the same reporting year you could use different -- if you have two or three different processes, and different indices might be more appropriate, you could use different ones.

MS. FASSINGER: Right.

MR. REIBSTEIN: I have actually previously presented the idea of the use index, which is very simple. It is current use over past use.

I don't know how many hundred million pounds you are using. I just know whether you are going up or down.

I have also talked about use efficiency, which is comparing waste to use. That is a different concept. I am assuming that if you have this and you know which way use is going, we already have waste, so we can look and see which way waste is going.

We can compare them and get a feel for waste efficiency, use efficiency that way.

What I am presenting to you is a vision here, which is that if we have good production ratio and good use index, and we compare current and past waste generation and we have a waste index out of that, we can pretty much tell if a company is doing source reduction, and we can tell if they are being efficient in their use of the chemical.

Here is a company that increased their production by three times and say, they are a doll factory. That is my favorite example. They are now making 300,000 dolls instead of 100,000.

They use some toxic chemical in the making of the doll's hair -- this is why I like this example. To avoid bad publicity, they decided to cut that down a little bit and not make that hair so green. They only used 200,000.

So, they are still toxic, but they are less toxic. They are putting out a safer doll. That will be reflected. They will show here some source reduction with the use index.

We don't still have these absolute figures that companies don't want to give and will fight EPA forever, perhaps, about not giving.

Then we can also see its relationship. So, we can see -- let's say this used to be 111. Now they are using twice as much and they still only have 100,000 or whatever waste. They still have as much waste as they had when they had 100,000 pounds of use.

So, they are using less per product and they are getting less waste per use. This is a good company. That is what I want to see out of the TRI.

That will tell me whether they are a good performing company. They are using less and what they are using, they are using more efficiently. I would like a system that would show that. Our current system does not show this.

MS. FASSINGER: Can we ask a clarifying question? Are you saying on there that your production is three times higher than it was last year, your use is twice as high and your waste is the same?

MR. REIBSTEIN: This is either year to year or baseline or both. But let's say this is the baseline. I am now producing three times as much product and my use is twice as much and my waste remains the same.

MR. FEES: I see that this tells you a lot, what you are asking. What you are asking is three indices per chemical.

MR. REIBSTEIN: We have got this and we have got this. I am only asking for one. This just takes calculation.

MR. FEES: You just take last year's TRI numbers to this year's numbers.

MR. REIBSTEIN: Yes, you have 100,000 waste; I can see that.

MR. FEES: So, only one additional one.

MR. REIBSTEIN: One additional piece of information, only one little harmless, easy-to-generate piece of data, and what a wealth of information.

MR. FEES: There are still certain caveats on the production ratio. Assuming that you are basing it on a unit of product, and that the unit of product can't change from year to year --

MR. REIBSTEIN: In Massachusetts, if you change your unit of product, you have to recalculate the base year. But you know, it is doable.

MR. SPRINKER: I guess through the use of the codes, for example -- let's take shoe manufacturing. The company has now decided -- they have increased the number of shoes they manufacture.

However, let's say what they have done is to import soles to then be glued on instead of making those soles on site.

So, they may actually show their production has gone up; their use index has not gone up as much because they are not having to use one of the chemicals as much as they did before.



MR. REIBSTEIN: I know what your goal is and that is why the list of the 14 things. They will look good and they will have to explain why they look good.

MR. SPRINKER: They would say outsourcing, for example.

MR. REIBSTEIN: Right.

MR. ORUM: What are the boxes on the form that you need to have all this, that we don't have now?

MR. REIBSTEIN: One little box.

MR. ORUM: And what does it say? Where is it?

MR. REIBSTEIN: Use index.

MR. FEES: Quantify use, I guess.

MR. REIBSTEIN: No, don't quantify use. It is a use index. Quantify the change in your use, delta use.

MR. ORUM: So, it is change per unit of product?

MR. REIBSTEIN: Per chemical.

MR. ORUM: Per chemical per unit of product.

MR. REIBSTEIN: You don't need to figure out a unit product for this. It is simple to do.

MR. ECK: So, it would be all chemical use over all processes.

MR. REIBSTEIN: Per chemical.

MR. ECK: All chemical use for that chemical for all processes, assuming there are many different processes.

MR. REIBSTEIN: Yes, because we don't break out by process.

MR. DOA: You would weigh it, though, I mean, when you are doing -- you would weigh it if you had a bunch of processes.

MR. NATAN: The production ratio would be weighed, but the total use.

MR. REIBSTEIN: You may have to do that for production ratio, but you won't have to do that for use index.

MR. NATAN: So, the point is that this use index may actually be easier to calculate.

MR. REIBSTEIN: Simple as pie. Now, at the last meeting I recommended this for use in calculating a production ratio, but I said that only in certain instances will it work.

So, yes, sometimes it will be identical to the production ratio. If you are the company that makes the toxic green dye that goes in the doll's hair, it is possibly the same numbers.

MR. STEIDEL: But green dye is not a TRI chemical.

MR. REIBSTEIN: What I am saying is the constituents in the dye.

MR. ECK: I guess as a comment to the ease of calculating that, currently I believe that a lot of my facilities are content to not capture total use. They stop when they get to the reporting thresholds, and they start worrying about releases and transfers, within reason.

You might be adding a bit more of a reporting burden there, especially for otherwise use, which is a fairly low threshold.

In some cases, a very large facility can cross that threshold in terms of use on three out of 20 buildings on the facility, which are not exempt, and make a very quick decision that we have to never mind use, we now have to go on and start

thinking emissions.

Yes, it is necessary when thinking of -- when trying to capture releases and waste transfer, to have a better representation than that for use, but it is not always necessary to capture all use.

In many cases it is possible to make the report for release and transfer without really knowing a use number. Again, I would be glad to look up a good specific example for you.

I guess my only objection would be it is not all that simple to capture. It can be captured, but it is not all that simple.

It is an extra reporting burden even for an index, basically, and assuming even that we all get to say the index is one for the very first year we have to do this, because nobody bothered to track it last year.

MR. FEES: They ought to know how much they use.

MR. ECK: I beg to differ that they ought to know. I run cities. I have troop installations that are cities; I do not run industrial processes. We are not real efficient. We are not designed to be.

MS. FERGUSON: I was just wondering if there is existing information that could help in the use index in terms of the top range of toxic chemical present, already captured. If you used that on a year-to-year basis?

MR. FEES: Maximum amount on site?

MS. FERGUSON: Yes.

MR. REIBSTEIN: I am sorry, I was still thinking about the city manager here.

MS. FERGUSON: Do we have that information already in the top range of the toxic chemical on site, in a year.

MR. REIBSTEIN: I thought you were supposed to already have it and you are supposed to calculate how much. I guess once you break the threshold or define your range, you stop.

I thought you were supposed to go and have a level of spent --

MR. FEES: The threshold is the amount on site, not use. Amount on site may not be used.

MS. FERGUSON: If you were reporting it on a chemical basis.

MR. FEES: Maximum amount on site at any one time may not necessarily relate to the overall use. It could. There could be some relation.

MR. REIBSTEIN: Source reduction begins with understanding use. You should know this, if you are really serious about source reduction, you have got to know what you are using, and it is meaningless without that.

MR. BROMLEY: I like Rick's whole presentation and I think the whole idea is excellent. I think it is very simple and I think it is very useful. But there are some additional caveats.

I think the town site one is a very important one. I think another one is having to do with EPA's new interpretation of coincidental manufacture of metal compounds within the categories.

I don't know how you are ever going to figure out

use when things are happening within a combustion chamber or something that you don't even have a concept how to measure what they are talking about.

It is a ridiculous interpretation in the first place, but this way, no way you would ever calculate it.

MS. DOA: I need to say something about the allegation that is totally untrue about coincidental manufacture.

That was discussed in the final rule implementing the reporting provisions of EPCRA section 313, which coincidental manufacture has always been covered.

FACILITATOR: Time out. We are going to see if we have consensus on some of these things in a second. Before we do that, do you want to make announcements?

MS. PRICE: Yes, we are talking about tomorrow and how we want to start tomorrow. We want people to break up into four groups and talk about the form R overall, given everything they have heard at all these meetings.

(Logistics of group meetings discussed.)

FACILITATOR: Just to wrap this up, I heard a lot of support for group four's proposal that they put up there. Was there consensus on that?

MS. FASSINGER: I would like to add a caveat before we try to get consensus on that, and that is to make the suggestion that these be optional.

So, if you are able to do one or the other, to provide better information, you do that. If you are able to provide all three, you do that.

That gives us, again, some flexibility and not an all or nothing decision.

MR. FEES: What option are we talking about?

FACILITATOR: I think we are talking about what group four did, what Tom talked about.

MS. FASSINGER: This is part of it.

MR. CHAMBERLAIN: The whole group four presentation provided options and this was just one of those. I supported group four's proposal and the fact that there are options and flexibility provided, and I would vote to support that.

MR. FEES: Group four's information isn't necessarily one solution.

FACILITATOR: So, we need to separate them out.

MR. FEES: I mean, it is more than one solution and hold that up as a recommendation. Then of course we have the qualifications underneath that.

MS. FASSINGER: I think the whole paper is the recommendations of group four, and not to agree on any one of those options.

MR. FEES: How do people like that option, to just take the whole paper and include --

MR. CHAMBERLAIN: Yes, Rick's piece is in there.

FACILITATOR: Does anybody not agree? It looks like everybody is okay with that.

(Hands raised in agreement.)

MR. LATIMER: I agree with everything. I just want to point out -- and I cannot think of an example and I don't think it affects my industry, but there could be a time point when the use index must compromise confidential business information.

If that is considered in that, then I don't have any problem with it.

MR. REIBSTEIN: As long as we formally note he cannot think of an example.

MR. LATIMER: I am just speaking up. There may be a situation.

MS. FASSINGER: Again, I think that is why we wanted to suggest that this be optional, in case one of these is just not applicable. Ed probably has examples, too, where one of these might just not be applicable.

MR. ORUM: You know what happened last time around when we had optional information in the form. Section 8 basically originally was optional and less than 10 percent of the facilities ever used it.

I would rather find the real objections where CBI really does get in the way, deal with those, and then make something optional as a whole, so that you have some kind of consistency.

MR. REIBSTEIN: I thought when people were talking about optional, that they were options for EPA to consider. This is recommended as a required piece on the form, and that is an option for EPA to consider doing.

FACILITATOR: Okay, any other comments, or are we set on this? Good. Okay, we will see you all at 8:00 o'clock. Come in and divide into your groups.

(Whereupon, at 4:20 p.m., the meeting was recessed, to reconvene the following day, Friday, March 20, 1998.)